Review and Comment Version: April 12-June 12, 2006

SUPPORTING DOCUMENT

FOR THE

NORTH COAST FOREST STEWARDSHIP PLAN

For operations within the North Coast Forest District under licences held or administered by the following, collectively known as the FSP Holders:

BC Timber Sales – Skeena Business Area: North Coast Timber Sale Licences

BCTS
BC Timber Sales
Skeena

200 – 5220 Keith Avenue
Terrace, BC V8G 1LI
Phone: 250 638 5100 Fax: 250 638 5176

Boyle and Dean Logging Ltd: Forest Licence A16838 *and* Thomson Industries Ltd: Forest Licence A16837

B&D

T/L

Managed by: Interpac Resources Ltd.
9701 – 201st Street
Langley, BC V1M 3E7
Phone: 604 881 2300 Fax: 604 881 2301

or

PO Box 220
3974 Old Lakelse Lake Road
Terrace, BC V8G 3V1
Phone: 250 638 8376 Fax: 250 635 5896

Coast Tsimshian Resources Ltd: Non-Renewable Forest Licence A60585

coast tsimshian resources

PO Box 398
4905 Keith Avenue
Terrace, BC V8G 4B1
Phone: 250 615 2040 Fax: 250 635 2323

Triumph Timber Ltd: Forest Licence A16820

Triumph Timber

729 - 2nd Avenue West
Prince Rupert, BC V8J 1H4
Phone: 250 627 8733 Fax: 250 627 4509

Prepared by: _____

R. Brouwer, RPF
Northwest Timberlands

Date: _____

Location for RPF Seal

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SD1 INTRODUCTION

This document is provided in support to the Forest Stewardship Plan (FSP) for the North Coast Forest District portion of the Skeena Business Area of BC Timber Sales ("BCTS"). This supporting document is organized as follows:

Section SD1: Introduction and context of this FSP within the current planning framework that exists on the FSP area.

Section SD2: Information directly related to the strategies and results in the FSP. Information is provided describing how the strategies or results are consistent with its related objective, and a rationale as to why the strategy or result was created.

Section SD3: General descriptions and discussion of issues with respect to the eleven forest values that have been identified in the *Forest and Range Practices Act*, including information that relates the strategies and results to these forest values. The general discussion allows a more conversational description of the intent of the Forest Stewardship Plan, and adds clarity and context to the enforceable strategies and results noted in the FSP. It is the FSP Holders' intent that this will simplify the FSP for the layperson.

Section SD4: Additional information for those parts of the FSP that are not related to the FRPA legal objectives.

Section SD5: Public, Agency, and First Nation referral, comment, review, and response information.

Section SD6: A description of the sources of information used in preparing the FSP.

This "Supporting Document" is not considered part of the Forest Stewardship Plan.

The North Coast FSP covers operations of several entities that have or administer forest tenures in the North Coast Forest District. These operations will fall under the *Forest and Range Practices Act*. The FSP covers the operations of:

- BC Timber Sales – Skeena Business Unit: Timber Sale Licences issued within the North Coast Forest District (Annual cut: 101,856 m^3)
- Boyle & Dean Logging: Forest Licence (Allowable Annual Cut (AAC): 19,295 m^3)
- Coast Tsimshian Resources Limited.: Non-Renewable Forest Licence A60585 (total volume of 32,000 m^3)
- Thomson Industries Limited: Forest Licence A16837 (AAC: 29,385 m^3)
- Triumph Timber Limited: Forest Licence A16820 (AAC: 146,824 m^3)

The operations of the FSP proponents are spread throughout the North Coast Forest District, and may occur within any of the Forest Development Units (FDUs) specified in this FSP. However, the FSP proponents will likely establish individual operating areas within the available FDUs, but this has yet to be finalized. Initial considerations of operating areas are as follows (but are subject to change):

Forest Development Unit	FSP Holder likely to be operating in FDU
N1, N2, N5, N11, N16, N19, N23, N30, N35, N37, N41, N43, N44, N49	BCTS–Skeena
N4, N8, N12, N13, N15, N25, N26, N31, N34, N36, N39	Boyle & Dean or Thomson Industries
N7, N18, N20, N24	Coast Tsimshian Resources
N3, N6, N10, N27, N29, N40, N42, N45	Triumph Timber

Forest Development Unit	FSP Holder likely to be operating in FDU
N14, N22, N38	Boyle & Dean or BCTS
N9, N17, N21, N28, N32, N33, N46, N47, N48	Any - not yet determined

(See the FSP maps or the overview map provide in the FSP document for FDU locations)

SD1.1 Interpretation

All references to the Forest and Range Practices Act, or to FRPA, mean the *Forest and Range Practices Act (SBC 2002, s.69, consolidated to March 31, 2005).*

All references to the Forest Planning and Practices Regulation, or to FPPR, mean the Forest *Planning and Practices Regulation (BC Reg 14/2004, consolidated to March 18, 2005).*

All references to the Government Actions Regulation, or to GAR, mean the *Government Actions Regulation (BC Reg 582/2004, effective Dec 13, 2004),* as it was on Feb 25, 2005.

All references to the North Coast Land and Resource Management Plan, or NCLRMP, mean the *North Coast Land and Resource Management Plan (February 2005).*

All references to the Ecosystem-Based Management Handbook, or EBM handbook, mean the *Ecosystem-Based Management Planning Handbook (March 2004).*

All references to the Hydroriparian Planning Guide, or HPG, mean the *Hydroriparian Planning Guide (January 30, 2004).*

All references to "Schedule B" mean the draft Schedule B dated April 7, 2005, and titled *Schedule B – Central and North Coast Government to Government Initial General Management Objectives*

SD1.2 Context of the FSP within the existing planning framework

This FSP is within the North Coast Forest District, which extends from the head of Portland Canal in the north to Princess Royal and Aristazabal Islands in the south, and includes the communities of Kitsault, Lax Kw'alaams (Port Simpson), Metlakatla, Prince Rupert, Port Edward, Oona River, Gitxaala (Kitkaltla), Hartley Bay, and Butedale. The communities of Gingolx, Stewart, and Klemtu are also quite close to the Forest District boundary. The FDUs within this FSP extend from Kitsault River south to Aristazabal Island.

Several strategic planning initiatives have occurred within the North Coast Forest District:

SD1.2.1 North Coast Land and Resource Management Plan

The North Coast Land and Resource Management Plan (LRMP) covers the North Coast Timber Supply Area and a portion of Tree Farm Licence 25. A consensus version of the LRMP was published in February 2005, but it has not received Cabinet approval, nor has it been designated as a "higher level plan" as defined in the *Forest Practices Code Act of BC*, nor in the *Forest and Range Practices Act*. Therefore, the North Coast LRMP does not provide any legal objectives under FRPA, and as a result, no land-use objectives are listed in the FSP document.

However, policy guidance has been provided from the BC Government indicating that the ecosystem-based management (EBM) aspect of the LRMP needs to be considered in forest planning. Furthermore, there is also an expectation that the LRMP will be receiving approval and HLP designation before the end of 2006. Therefore it is incumbent on both the FSP Holders' professional staff and the delegated decision maker that the information in the LRMP be considered in the formulation and review of those parts of the FSP that overlap the LRMP area, and that discussion of the LRMP occur within this supporting document where necessary.

SD1.2.2 Central Coast Land and Resource Management Plan

The Central Coast Land and Resource Management Plan (LRMP) covers the southern portion of the North Coast Forest District, including a portion of the area under this FSP. A consensus version of the Central Coast LRMP was published in May 2004, but it has not received Cabinet approval, nor has it been designated as a "higher level plan" as defined in the *Forest Practices Code Act of BC*, nor in the *Forest and Range Practices Act*. Therefore, the Central Coast LRMP does not provide any legal objectives under FRPA, and as a result, no land-use objectives are listed in the FSP document.

However, policy guidance has been provided from the BC Government indicating that the ecosystem-based management (EBM) aspect of the LRMP needs to be considered in forest planning. Furthermore, there is also an expectation that the LRMP will be receiving approval and HLP designation before the end of 2006. Therefore it is incumbent on both the FSP Holders' professional staff and the delegated decision maker that the information in the LRMP be considered in the formulation and review of those parts of the FSP that overlap the LRMP area.

SD1.2.3 Ecosystem Based Management

Concurrent with both the North Coast and Central Coast LRMPs, a process described as ecosystem-based management (EBM) has been developed. EBM is described in the North Coast LRMP as "an adaptive approach to managing human activities that seeks to ensure the coexistence of healthy, fully functioning ecosystems and human communities. The intent is to maintain those spatial and temporal characteristics of ecosystems such that component species and ecological processes can be sustained, and human well-being supported and improved."[1] The primary EBM publications include the Ecosystem-Based Management Handbook and the Hydro-riparian Planning Guidebook.

As with the LRMPs, EBM has not received any higher-level plan designation, nor have any aspects of EBM been declared as objectives set by government. Therefore EBM cannot be directly incorporated into this FSP. Instead, the FSP Holders have committed to incorporating, where possible, the voluntary elements in the EBM Transitional Management Targets described in the North Coast LRMP[2].

As of February 2006, the government of BC has made a commitment that the North Coast TSA will become subject to EBM. However, no legal objectives have been established for, or related to EBM, so the FSP cannot include EBM strategies or results. However, since there is a strong likelihood that legal objectives may be established in the near future, information is included in this support document about how EBM may potentially be applied once legal EBM objectives are established. This information is provided in section 4.3.

SD1.2.4 Provincial Park Management Direction Statements

There are 7 provincial parks within the North Coast Forest District:

- Kitson Island Marine Park
- Klewnuggit Inlet Marine Park
- Lowe Inlet Marine Park
- Union Passage Marine Park
- Diana Lake
- Prudhomme Lake
- Khutzeymateen

All of these parks except Khutzeymateen have Management Direction Statements in place. The

[1] *North Coast LRMP*, Section 3.1.1, p 38
[2] *North Coast LRMP*, Section 3.2.6, pp 46-48

FDUs in this FSP overlap or are adjacent to five of the parks (Diana Lake and Prudhomme Lake are not within an FDU). The results and strategies in the FSP are consistent with the management direction for these parks.

SD1.3 List of Acronyms

Acronyms used in the FSP or Supporting Document are as follows:

AIA:	Archaeological Impact Assessment
AOA:	Archaeological Overview Assessment
BA:	Basal Area
BCTS:	British Columbia Timber Sales
BEC:	Biological, Ecological, and Climatic; or Biogeoclimatic Ecosystem Classification
C&E:	Compliance and Enforcement
CDC:	Conservation Data Center
CWD:	Coarse Woody Debris
CWH:	Coastal Western Hemlock
DDM:	Delegated Decision Maker
DFO:	Department of Fisheries and Oceans
EBM:	Ecosystem-based Management
EMS:	Environmental Management System
FDP:	Forest Development Plan
FDU:	Forest Development Unit
FL:	Forest Licence
FLTC:	Forestry Licence To Cut
FPPR:	Forest Planning and Practices Regulation
FRPA:	Forest and Range Practices Act
FSP:	Forest Stewardship Plan
GAR:	Government Actions Regulation
GWM:	General Wildlife Measure
HLP:	Higher Level Plan
HPG:	Hydroriparian Planning Guide
ICH:	Interior Cedar-Hemlock
ILMB:	Integrated Land Management Bureau
LRMP:	Land and Resource Management Plan
LU:	Landscape Unit
MH:	Mountain Hemlock
MoE:	Ministry (or Minister) of Environment
MoF:	Ministry (or Minister) of Forests
MoFR:	Ministry (or Minister) of Forests and Range
MSRM:	Ministry (or Minister) of Sustainable Resource Management
MWLAP:	Ministry (or Minister) of Water, Land and Air Protection
NDT:	Natural Disturbance Type
NLG:	Nisga'a Lisims Government
NWC:	Nass Wildlife Committee
NRFL:	Non-Renewable Forest Licence
OGMA:	Old Growth Management Area
OSBG:	Objective Set By Government
QP:	Qualified Professional

RIC:	Resource Inventory Committee
RMA:	Riparian Management Area
RMZ:	Riparian Management Zone
RPBio:	Registered Professional Biologist
RPF:	Registered Professional Forester
RRZ:	Riparian Reserve Zone
SRMP:	Sustainable Resource Management Plan
SP:	Site Plan
TFL:	Tree Farm Licence
TRP:	Total Resource Plan
TSA:	Timber Supply Area
TSFA:	Terrain Stability Field Assessment
TSK:	BC Timber Sales – Skeena Office
TSL:	Timber Sale Licence
UWR:	Ungulate Winter Range
VIA:	Visual Impact Assessment
VQO:	Visual Quality Objective
VSC:	Visual Sensitivity Class
WAP:	Watershed Assessment Procedure
WHA:	Wildlife Habitat Area
WTP:	Wildlife Tree Patch

SD2 INFORMATION DIRECTLY RELATED TO THE STRATEGIES AND RESULTS

This section follows the format of the FSP and provides additional information that relates directly to the strategies or results identified in the FSP.

Many strategies or results apply to more than one forest value. A table showing the strategies or results that are applicable to each forest value is provided in section SD3.12.

The following paragraphs are reproduced from the FSP document to remind the reader of the structure of Objectives, Strategies, and Results:

> **Objectives** are descriptions of how overall goals are to be achieved. In this case, the goals are increased flexibility in forest management, decreased administrative complexity, and maintenance of environmental protection. Objectives can vary from place to place, depending on the circumstances of the area. The FRPA defines three types of objectives:
>
> > *Objectives set in regulation*: These objectives are explicitly stated in the Forest Planning and Practices Regulation, and apply provincially.
> >
> > *Objectives enabled by regulation*: The *Government Action Regulation* provides authority to the Ministers of Forests; Water, Land, and Air Protection; or Sustainable Resource Management to establish objectives for certain items described in the regulation. These objectives can apply at many different scales.
> >
> > > Habitat objectives have been established for several wildlife species ("Section 7" notices). Some Wildlife Habitat Area objectives are also expected to be established in the near future. Section SD3.3 of the *Supporting Document* to this FSP provides further discussion of these items.
> >
> > *Land-use objectives*: These are objectives specific to a certain area that have been established through a Landscape Unit Plan or some sort of higher-level plan such as a Land and Resource Management Plan. The Minister of Sustainable Resource Management sets these objectives.
> >
> > > In February 2005, the North Coast Land and Resource Management Plan: Final Recommendations was published. The NCLRMP has not yet received Cabinet approval, nor has it been designated as a higher-level plan: therefore, the objectives within the LRMP are not considered land-use objectives under the FRPA. See the *Supporting Document* to this FSP for further discussion of the North Coast LRMP.
>
> **Strategies** are:
> - measurable or verifiable steps or practices that will be carried out in order to achieve consistency with a particular established objective, and
> - the situations or circumstances that determine where in a forest development unit the steps or practices will be applied.
>
> **Results** are:
> - measurable or verifiable outcomes in respect of a particular established objective, and
> - the situations or circumstances that determine where in a forest development unit the outcomes will be applied.
>
> **Practice Requirements** can be affected by strategies or results. Under the FPPR, default practice requirements are identified that are considered to achieve some of the objectives set by government. However, the FPPR allows a FSP to provide strategies or results that can also achieve these objectives, and by doing so, the default practice requirements will no longer apply to activities under the FSP.

The remainder of this section provides information describing how the strategies or results are consistent with its related objective, and a rationale as to why the strategy or result was created.

SD2.1 Rationales for Strategies and Results

FSP Reference number: **NC-01** *Strategy,* **NC-02** *Strategy,* and **NC-03** *Result*

Consistency with the soils objective is achieved through taking action on roads, which are a known conduit for the movement of erodible soils: regular inspections will allow the risk of erosion to be mitigated.

NC-01 reflects the situation for major forest tenures holders, whereas **NC-02** reflects the BCTS situation, whereby the timing of when TSL holders become active is not within BCTS' control.

FSP Reference number: **NC-04** *Result*

Consistency with the timber objective is achieved by confirming the need to reforest areas that are harvested, so there will be timber for the forest industry in the future.

The Stocking Standards in this FSP are based on established standards that have undergone extensive review, including the consideration of economically and ecologically viable species, and the forest health risks associated with those species. A departure from the previously established stocking standards is the late free growing date, which has been set at 20 years. This is in accordance with the FPPR section 44, which makes allowance for this time frame. Under the current silviculture treatment regime, there has often been a need to extend the late free-growing date for reforested areas. By extending the late free-growing date, there will be a reduction in unnecessary paperwork and an increase in operational flexibility for the licence. With the current level of information respecting the state of silviculture in the area, it is not expected that current forest management practices will change. Since timber supply reviews are based on current management practices, the change in the free growing date is not expected to impact the timber supply.

The stocking standards in Appendix A of the FSP also address wildlife objectives by allowing reduced stocking and inter-tree spacing. These stocking standards address forage requirements for moose winter range, with an added benefit in that they will address grizzly bear forage requirements as well. See the discussion of result **NC-07** for more information.

FSP Reference number: **NC-05** *Result*

Consistency with the timber objective is achieved by ensuring that other operators' access to timber is not limited by actions in this FSP.

This result is a direct result of input from the Nisga'a Lisims Government, who did not want to see access to their forest lands cut off.

FSP Reference number: **NC-06** *Result*

Consistency with the timber objective is achieved by ensuring that the opportunity to harvest timber is maintained for those portions of Part 13 Designated Areas that are within FDUs that do not ultimately end up in a "no harvest" land use.

The Part 13 Designated Areas were established to allow government to make up its mind on possible land use decisions. Once those decisions are made, the portions of the Part 13 areas that are within the FDUs in this FSP that are made available for harvest will be subject to this FSP, thereby eliminating the need for a FSP amendment. If the Part 13 Areas are placed into a non-harvestable land use, then the areas will remain "no harvest" under this FSP.

FSP Reference number: **NC-07** *Result*

Consistency with the wildlife objective is achieved through this result's establishment of criteria for maintaining forage opportunities for identified species.

This strategy and result is based on information from both the North Coast and Kalum LRMPs and the Habitat Attributes for Moose as described in the *Notice – Indicators of the Amount.*

Distribution, and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species for the North Coast TSA. Reduced stocking requirements and minimum inter-tree spacing was determined through the LRMPs to reflect the needs of grizzly bear, and this was incorporated into the accepted stocking standards for the Kalum Forest District. Review of the requirements for Moose winter habitat determined that the application of reduced stocking and lower inter-tree spacing to Moose Winter Range would provide the same benefits as for the Grizzly Bear: increased forage potential while still maintaining a commercially viable forest stand. While both species have different habitat connectivity requirements, the forage needs of moose are similar to that of grizzly bear (*personal communication, B. Pollard, RPBio – January 14 2005*), allowing the transfer of the intent of the Kalum Grizzly Bear stocking standards for application to Moose in the North Coast, with benefits for Grizzly Bear as well.

FSP Reference number: **NC-08** *Strategy* and **NC-09** *Result*

Consistency with the wildlife objective and associated notice is achieved through this strategy and result's limiting of disturbance to ungulate species when in their winter range.

Habitat amount, distribution, and attributes are as per the spatially defined Moose proposed UWR identified on the map provided in support to the Section 7 notice ("*Location of Proposed Ungulate Winter Ranges in the North Coast TSA*"; Biodiversity Branch, Ministry of Water Land and Air Protection (July 2004)).

This approach and timing of activities are generally consistent with the approach used in the North Coast LRMP.

FSP Reference number: **NC-10** *Strategy*

Consistency with the wildlife objective and associated notice is achieved through this strategy's limiting of disturbance to ungulate species when in their winter range.

Habitat amount, distribution, and attributes are as per the spatially defined Goat UWR identified on the maps with the Section 7 notice.

This exemption provision ensures that the management of Goat UWR is occurring "without unduly reducing the supply of timber from British Columbia's forests".

Since there are no established GWM for UWR in the North Coast, this strategy flows from the *General Wildlife Measure (GWM) for Mountain Goat Ungulate Winter Range in the Kalum TSA and TFLs 1 and 41 (November 2005)*, and clarifies what would constitute an exemption under the GWM for activities to occur around the UWR. This approach has been discussed with a local RPBio with experience with Mountain Goats on the North Coast *(personal communication, B Pollard, RPBio, January 30, 2006)*.

FSP Reference number: **NC-11** *Strategy*

Consistency with the wildlife objective and associated notice is achieved by ensuring that wildlife management using proposed Mountain Goat UWR occurs "without unduly reducing the supply of timber from British Columbia's forests".

Since there are no established GWM for UWR in the North Coast, this strategy and result flow from the *General Wildlife Measure (GWM) for Mountain Goat Ungulate Winter Range in the Kalum TSA and TFLs 1 and 41 (November 2005)*, and clarifies what would constitute a process under the GWM to allow activities within areas incorrectly identified as UWR. This approach has been discussed with a local RPBio with experience with Mountain Goats on the North Coast *(personal communication, B Pollard, RPBio, January 30, 2006)*.

This strategy provides for activities to be focused on true UWR by allowing non-UWR areas to be treated as such.

Ultimately, if this becomes a common occurrence, a review of the habitat amount would be required.

FSP Reference number: **NC-12** *Strategy*

Consistency with the wildlife objective and associated notices for marbled murrelet and Queen Charlotte goshawk is achieved by identifying candidate wildlife habitat areas for marbled murrelet and Queen Charlotte goshawk that meets the habitat distribution, amount, and attributes of these species, and for ensuring that an evaluation of these candidate areas occurs before any activities occur within them. An undue timber supply impact is avoided by providing a process which will allow activities within the candidate wildlife habitat areas as long as they remain un-established.

FSP Reference number: **NC-13** *Strategy* and **NC-14** *Result*

Consistency with the wildlife objective is achieved by allowing for the establishment of a range of patch sizes - this is shown to be of benefit to Marbled Murrelet, Northern Goshawk, and Grizzly Bear (as per IWMS habitat characteristics)

This strategy and result will allow a distribution of areas of different sizes over an extended period of time. It is based on the well-established science of Natural Disturbance Types and the temporal and spatial distribution of disturbance, as described in the *Biodiversity Guidebook* (September 1995), and uses the analysis as described in the guidebook.

Development within a FDU will move towards the patch size and seral stage distribution targets that are in place for NDTs, and will be calculated separately for each LU that overlaps the FDU.

While meeting the requirements of the Old Growth Order, ensures that old growth will be retained over the landscape, and allows the identification of specific stands to meet Old Growth Order, which contributes to the habitat attributes for marbled murrelet, northern goshawk, and grizzly bear. This means that this strategy and result are also consistent with the habitat requirements for northern goshawk, grizzly bear and marbled murrelet, as described in the notices for these species under section 7 of the FPPR. Moose will also benefit from a range of seral stages, particularly with respect to continued forage opportunities.

FSP Reference number: **NC-15** *Result*

Ensures that any harvesting in these Community Watersheds results in no hydrological impact, but allows activities to occur, thereby limiting timber supply impact.

NCLRMP is silent on Community Watersheds, but this result is consistent with wording from the nearby Kalum LRMP for Community Watersheds.

FSP Reference number: **NC-16** *Strategy*

Addresses the Old Growth Order by providing a process that is consistent with the targets in the Order, and by allowing for the designation of spatial old growth management areas (OGMAs).

While meeting the requirements of the Old Growth Order, ensures that old growth will be retained over the landscape

Consistent with the Old Growth Order while allowing both aspatial and spatial approaches to Old Growth retention. Ensures that old growth representation can be verified and reproduced; is ecosystem based, and ensures representation across the landscape.

Is consistent with the approach from the Landscape Unit Planning Guide

FSP Reference number: **NC-17** *Strategy*

Consistency is achieved in that the process defines how VSCs will be handled and evaluated as VQOs, and then indicates how management around the VQOs will occur.

This strategy is based on the Visual Impact Assessment guidebook (January 2001), with the addition of a viewpoint selection process. Consistency with the objective set by government for visual quality is achieved through the application of an established method for visual management, and defines how VSCs will be handled and evaluated as VQOs, and then indicates how management around the VQOs will occur. Does not follow NC LRMP recommendations re

Visual Management as there are significant issues with the NC LRMP approach with respect to measure and verify.

FSP Reference number: **NC-18** *Strategy*

Consistent with the non-approved VQO mapping that was attached to the Scenic Area designation letter. No polygons, but definitely within Scenic Area.

This strategy is based on input received from Nisga'a Lisims Government (NLG), and addresses a portion of a known scenic area that does not have established VQOs, and is of particular importance to NLG within their Commercial Recreation tenure areas.

FSP Reference number: **NC-19** *Strategy*

This strategy allows the identification, review, and update of traditional use and cultural heritage information that is used in the development (and if necessary, amendment) of this FSP.

Consistency with the cultural heritage resources objective is achieved by providing a method for conservation and protection of known cultural heritage resource information, and for continual updates to cultural heritage resource information.

Based on wording in approved FSPs for the Kalum Forest District

FSP Reference number: **NC-20** *Strategy*

This strategy allows the identification, review, and update of information from the Nisga'a Lisims Government, in recognition of the Nisga'a Treaty requirement that the Nisga'a need to be informed of any potential activity that may impact the Nisga'a people[3]. This strategy results from input from the Forest Resources Manager of the NLG, and is considered to be consistent with the objective for cultural heritage resources as the Nisga'a Final Agreement sets out section 35[4] rights of the Nisga'a people.

FSP Reference number: **NC-21** *Strategy*, **NC-22** *Strategy* and **NC-23** *Result*

This strategy allows the identification and review of traditional use and cultural heritage information that has not been captured in the development of this FSP.

NC-21 reflects the use of existing Archaeological Overview Assessments, and **NC-22** reflects the process when new site-level information is identified.

Consistency with the cultural heritage resources objective is achieved by providing for stand-level mitigation of identified cultural heritage resources when necessary. Filed information will indicate whether any new cultural heritage information was found, and how any potential impact was mitigated, and this new information must be provided to the appropriate First Nation and decision maker. (For the purposes of confidentiality and protection of cultural heritage features, descriptions may be purposefully vague.) These strategies and result are based on wording from approved FSPs for the Kalum Forest District

FSP Reference number: **NC-24** *Result*

This result provides for the maintenance of a resource for an identified traditional use of Cedar or Cypress.

Consistency with the cultural heritage resources objective is achieved by providing for stand-level retention of trees so that a supply of raw materials for traditional cultural heritage activities can be maintained.

This result is directly related to information provided by First Nation groups. Cedar (and Cypress, on the coast) provides a valuable resource for traditional cultural activities: bark provides textiles,

[3] Nisga'a Final Agreement, Environmental Assessment and Protection Chapter (paragraph 6)
[4] Section 35 of the Constitution Act, 1982

and the logs provide building materials (canoes, planks) and spiritual materials (totem poles). The stocking standards in this FSP prescribe Cedar or Cypress where ecologically appropriate, so a continued supply of trees for bark stripping purposes is ensured, as is the supply of lumber (the modern form of planks). However, to ensure the supply of larger logs for canoes, planks, or poles, this result has been prepared to ensure that in forest stands that have cedar or cypress retention in WTPs and RMZs, removal of some of these stems for cultural purposes is an acceptable activity.

Consistency with the cultural heritage resources objective is achieved by providing a method for ensuring that a supply of raw materials for traditional cultural heritage activities be maintained.

FSP Reference number: **NC-25** *Result*

In accordance with the FPPR section 12(3), the retention of trees within Riparian Management Zones is addressed. A method for approximating basal area is provided, and the result is worded to reflect the need for flexibility with respect to site specific conditions. Providing for the retention of trees within riparian management zones achieves consistency with the objective for riparian areas (FPPR s. 8).

This also contributes to the habitat attributes for Coastal Tailed Frog.

FSP Reference number: **NC-26** *Result*

Mount McLean Recreation Trail is currently not in use, but it does have an established trail management objective. This result is basically a re-phrasing of this objective, with a clarification regarding the potential need for trail re-establishment or relocation.

Consistency with the recreation site objective is achieved as the wording is taken directly from the objective.

SD2.2 Consistency of Strategies and Results across the known FRPA Objectives

In addition to a strategy or result having to be consistent with the objective it was written for, the strategies and results should not create any inconsistency with any other of the known objectives set by government. This FSP has been reviewed with this consideration in mind, and there are no obvious contradictions or conflicts between the strategies and results.

The potential effect of each strategy and result on the established objectives that apply in the FSP is summarized in the following table.

FSP Strategy or Result, or FPPR Practice Requirement	Objective Set by Government[1], or related Notice or Order Y = Identified within the FSP as contributing to the achievement of the Objective																
	FPPR s. 5	FPPR s. 6	FPPR s. 7(1)	Mountain Goat UWR Notice	Moose UWR Notice	Northern Goshawk Notice	Coastal Tailed Frog Notice	Marbled Murrelet Notice	FPPR s. 8	FPPR s. 8.2	FPPR s. 9	FPPR s. 9.1	Old Growth Order	FPPR s. 9.2(2)	FPPR s. 10	FPPR 12(3)	Recreation Objectives
NC-01	Y																
NC-02	Y																
NC-03	Y																
NC-04		Y															
NC-05		Y															
NC-06		Y															
NC-07			Y		Y												
NC-08			Y		Y												
NC-09			Y		Y												

FSP Strategy or Result, or FPPR Practice Requirement	Objective Set by Government[1], or related Notice or Order Y = Identified within the FSP as contributing to the achievement of the Objective																
	FPPR s. 5	FPPR s. 6	FPPR s. 7(1)	Mountain Goat UWR Notice	Moose UWR Notice	Northern Goshawk Notice	Coastal Tailed Frog Notice	Marbled Murrelet Notice	FPPR s. 8	FPPR s. 8.2	FPPR s. 9	FPPR s. 9.1	Old Growth Order	FPPR s. 9.2(2)	FPPR s. 10	FPPR 12(3)	Recreation Objectives
NC-10			Y	Y													
NC-11			Y	Y													
NC-12			Y			Y		Y									
NC-13			Y			Y		Y									
NC-14			Y			Y		Y									
NC-15										Y	Y						
NC-16			Y									Y		Y			
NC-17														Y			
NC-18														Y			
NC-19															Y		
NC-20															Y		
NC-21															Y		
NC-22															Y		
NC-23															Y		
NC-24															Y		
NC-25			Y				Y		Y							Y	
NC-26																	Y
FPPR s. 35,36	Y																
s. 47-51, 52(2), 53									Y								
s. 59-61										Y							
s. 64, 65											Y						
s. 66, 67												Y					

1. Note that FPPR s. 8.1 (Objective in fisheries sensitive watersheds) does not apply as there are none in the FSP area.

In addition to the above table, **Appendix SDA** provides an evaluation tool for the Delegated Decision Maker in determining how the strategies and/or results in the FSP are consistent with the objectives set by government, and measurable or verifiable.

SD3 Relating the Strategies and Results to the FRPA Forest Values

This section provides background information on the forest values described in the FRPA legislation (FRPA section 149), and how the strategies and results relate to these values. Each value is described in general, followed by a more specific description of the management considerations related to the value. Linkages to the strategies and results in the FSP are noted.

This section may also include discussion of forest management aspects or activities that do not appear in the FSP: this reflects the fact that while the FSP can only address legal objectives that have been set by government, there are other activities and actions that are carried out by the forest manager.

SD3.1 Soils

Maintenance of forest soil is facilitated by keeping the soil where it is – this is accomplished through consistency with the objectives set by government for soils, as described in section 2 of the FSP.

The FSP Holders has elected to follow the defaults outlined in section 35 and 36 of the FPPR to ensure consistency with the objective for soils. These defaults describe limits for allowable soil disturbance on a site, and limits on the area that can be given over to roads or landings. In general, the FSP Holders tend to avoid areas having a high potential for mobilizing soils, whether through landslides or through erosion. When potentially unstable areas are unavoidable, operations will be prescribed and conducted in a manner that limits the risk of landslides and soil erosion.

As part of its Environmental Management System, BCTS also has an Emergency Response Manual to deal with emergencies like landslides or road wash-outs.

SD3.1.1 Terrain Stability

Terrain stability refers to an area's potential for landslides, whether through natural processes or as a result of human activities. The best way to minimize the risk of landslides is to avoid highly unstable areas. However, this is not always possible.

When operations are planned in areas with potential instability or at significant risk of soil erosion, the potential impact on the environment can be limited by reviewing the recommendations and results from detailed terrain stability field assessments (TSFAs) on similar areas, or by carrying out new TSFAs. These TSFAs are conducted by experts in the fields of geomorphology, geology or engineering.

SD3.1.2 Soil Erosion

Soil erosion is the movement of soils by water or wind. Erosion due to water is the primary concern within the area of this FSP, and creates a risk of soil loss from productive forest land, or of sediment input into water courses, affecting water quality and fish habitat.

Human activities that can increase the risk of soil erosion are centered on the exposure of soil through road construction or forest harvesting. Road construction is carried out to limit the potential for soil to be transported away from the road bed: natural drainage patterns are maintained, ditch blocks and sediment traps are strategically placed, and where particularly erodible soils are exposed, revegetation (usually through grass-seeding) can be employed. The FRPA also provides limits on the amount of road that can be built within a harvest area (FPPR s. 36). As described in strategies **NC-01** and **NC-02** and result **NC-03**, regular inspections of the roads within an operating area will also help to limit the potential for erosion by identifying areas and items that need to be dealt with before they become problems.

Forest harvesting activities can sometimes cause soil disturbance due to harvest methods.

particularly from cable harvesting systems on hummocky ground, or from ground-based harvesting if it occurs in particularly wet weather. These situations are avoided. There are also limits in FRPA on the amount of allowable soil disturbance from harvesting (FPPR s. 35).

SD3.2 Timber

The area covered by this FSP is dominated by wet coastal forests, made up primarily of hemlock, red cedar, cypress (yellow cedar), pine, spruce, balsam. The pine is commonly known as shore pine, and is rarely of a commercial quality. There is also a small component of Douglas–fir within the landbase, and deciduous (broad-leaf) species, of which cottonwood or red alder are considered to be commercial. Only 6% of the land within the North Coast Timber Supply Area (TSA) is available for forest management. Harvesting of the timber within this area will be conducted in a cost-effective manner that maintains the integrity of other associated resource values within the operating area. Harvesting techniques that maximize the economic, environmental and safe utilization of the timber resource will be encouraged.

The total allowable annual cut (AAC) for the North Coast TSA is 573,624 m^3. The total AAC administered by the Skeena Business Area is 1,048,769 m^3 (*personal communication. M Folkema, February 2005*) Within the North Coast Forest District, the BCTS planned annual cut is 101,850 m^3.

In order to maintain an economically viable timber profile, forest management must take into consideration those factors that can affect the health of the forests that are being managed.

SD3.2.1 Pests and Disease

The main pests that are impacting North Coast forests are deer and porcupine. The primary disease of note is hemlock dwarf mistletoe.

Deer will often browse young forests, with a preference for red cedar or yellow cypress. Porcupines prefer to feed on the bark of spruce and hemlock. The advisory footnotes to the stocking standards referenced in result **NC-04** in the FSP include the site series that are susceptible to deer and porcupine, allowing the prescribing forester to consider appropriate mechanisms to address potential browsing.

Spruce weevil is often mentioned as a pest on the coast of BC, but is rarely encountered in the North Coast Forest District. While this makes the spruce weevil a pest with relatively limited impact, it is still prudent to consider this as a pest of concern. Therefore, as a precautionary measure, site series that are potentially at risk from spruce weevil are identified in the advisory footnotes to the FSP stocking standards referenced in result **NC-04**.

Hemlock dwarf mistletoe is endemic in the hemlock forests of the North Coast. It does not kill its host, but can affect the form of the tree, making it less valuable from a commercial perspective. However, hemlock is well-adapted to living with mistletoe, growing well in spite of infestation: as long as the mistletoe is limited to the branches of a tree, it does not cause a significant degrading of timber quality. Where mistletoe infection is significant, acceptable prescriptions may include avoiding reforestation with hemlock immediately adjacent to standing timber, or knocking down tall residual stems (i.e. more than 3 meters high) in a harvested area.

SD3.2.2 Windthrow

Certain sites within the North Coast Forest District can be prone to windthrow due to characteristics in topography, soils or stand structure. Harvest plans can be designed to minimize windthrow events by recognizing sites where windthrow is likely to occur, and by considering strategies to reduce windthrow:

- Conduct windthrow assessments.
- Ensure the harvest boundary is located along a windfirm edge.
- Leave relatively straight boundaries; avoid sharp corners or indentations that are exposed to wind.

- Feather the forested edge and leave windfirm trees as a buffer adjacent to the harvest boundary.
- Topping and/or pruning in areas of high windthrow risk.

Harvesting of windthrow areas is based on a balance between the feasibility of harvesting the area and the protection of forest resources. In particular, riparian areas need to be assessed for the level of risk to the aquatic environment including the maintenance of large woody debris, and the effects of windthrow on wildlife habitat values.

SD3.2.3 Fire Protection

The risk of loss of timber due to wild or operational fire is generally low on the North Coast. However, logging slash can create a high fire hazard unless managed appropriately.

To minimize fire hazard, the following fuel management strategies may be used:

1. Salvage wind thrown timber wherever economical and environmentally practicable.
2. Pile roadside slash and landing accumulations concurrently with harvesting operations. Where possible, slash piles will be burned in the fall when there is a reduced fire hazard.

The FSP Holders also submit a contact list annually to the MoFR Northwest Fire Centre.

An additional consideration for a viable timber industry is to ensure that there is a good mix of tree species within the forests of the North Coast. This will allow for market response in the future, and also creates forests that are healthier and more resistant to disease and infestations. The stocking standards referenced in result **NC-04** include multiple species choices to allow achievement of this goal. In recognition of the value of cedar and cypress, both as an economic and a cultural species, where cedar and/or cypress is a preferred species in the stocking standard, reforestation efforts should be made to meet or exceed the original stand's proportion of these species as measured by the well spaced trees in the new stand.

An economically viable timber profile includes consideration of the needs of other licensees or agencies involved in forest management. To this end, result **NC-04** reflects the need of the Nisga'a Lisims Government to have continued access to their lands, while **NC-06** reflects a temporary designation of some lands covered by the FSP as not available for harvesting until a deadline expires, unless a land-use decision is made before then to confirm the area as either no harvest or available for timber management.

SD3.3 Wildlife

On May 6, 2004, under section 11 (now section 13) of the *Government Actions Regulation* (GAR), the Minister of WLAP made an Order identifying species of wildlife that require management. The Minster made an addendum to the order identifying one additional species on May 30, 2005. The following species are designated as species at risk under FPPR s. 7(2)(a):

Reptiles
- "Great Basin" Gopher Snake

Amphibians
- Great Basin Spadefoot
- Tiger Salamander
- Red-legged Frog
- Rocky Mountain Tailed Frog
- Northern Leopard Frog
- Coastal Giant Salamander
- Coastal Tailed Frog
- Coeur d'Alene Salamander

Birds
- Ancient Murrelet
- Burrowing Owl
- Flammulated Owl
- Great Blue Heron
- Lewis's Woodpecker
- Marbled Murrelet
- "Queen Charlotte" Goshawk
- "Queen Charlotte" Northern Saw-whet Owl
- Sage Thrasher
- Short-eared Owl
- Spotted Owl
- "Interior" Western Screech Owl
- White-headed Woodpecker
- Yellow-breasted Chat

Mammals
- Keen's Long-eared Myotis
- Pacific Water Shrew
- Fringed Myotis
- Badger
- Vancouver Island Marmot
- Caribou (Mountain, Boreal, Northern populations)
- Spotted Bat
- Grizzly Bear
- Wolverine (subspecies *luscus, vancouverensis*)

Fish
- Vananda Lake Limnetic Stickleback
- Vananda Lake Limnetic Stickleback

Plants
- Scouler's Corydalis
- Tall Bugbane

This list was provided through FRPA. There are also "red- or blue-listed" species identified through the Conservation Data Center (CDC), and these are also often referred to as "species at risk". From the perspective of FRPA, however, these CDC species are not addressed by strategies or results for wildlife in the FSP unless they were also identified under the GAR. BCTS has noted in its Environmental Management System (EMS) that the CDC red and blue listed species will be part of its management regime. Therefore, even though these species are not included in the FSP, they are discussed in this supporting document (see **section 3.3.7**).

SD3.3.1 Species at Risk identified through GAR

Of the species listed in the identified species Order under GAR, Coastal Tailed Frog, Great Blue Heron, Grizzly Bear, Keen's Long-eared Myotis, Marbled Murrelet, Queen Charlotte Goshawk, and Wolverine are identified[5] as occurring within the North Coast Forest District. In addition, the BC Conservation Data Center indicates that Ancient Murrelet may be present in the North Coast.

As of February 2006, notices providing descriptions of the habitat area, distribution, and attributes for the identified species at risk in the North Coast Forest District have been issued by the MoE for
- Coastal Tailed Frog
- Marbled Murrelet
- Queen Charlotte Goshawk

Notices for Great Blue Heron, Grizzly Bear, Keen's Long-eared Myotis, or Wolverine have not been issued, so strategies or results for these wildlife species are not required in the FSP. However, between the strategies and results that address the coastal tailed frog, marbled murrelet, and Queen Charlotte goshawk, as well as those for ungulate winter range, plus the other strategies within this FSP that address water and biodiversity issues, management is occurring that benefits **all** the identified species.

SD3.3.1.1 Coastal Tailed Frog

The coastal tailed frog is dependent on small forest streams, usually stream class 3, 4, 5, or 6. Following the default riparian management area widths, as noted in the FSP, will capture a significant portion of this habitat. There are two (2) wildlife habitat areas (WHA) approved for the coastal tailed frog, and these capture the required habitat amount, distribution, and attributes of as described in the Notice for Coastal Tailed Frog. The goals for these WHAs are stream stability, maintenance of water temperature, riparian habitat and microclimate, and coarse woody debris for adult frog dispersion. General Wildlife Measures as described in the Identified Wildlife Management Strategy apply on these WHAs.

Over the remainder of the FDU area, the practice requirements for riparian areas, and the retention of trees as described in result **NC-25**, will also provide for the habitat needs of the coastal tailed frog.

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[5] *Identified Wildlife Strategy: Accounts and Measures for Managing Identified Wildlife (version 2004)*: Appendix 11: Coast region Identified Wildlife forest district tables

SD3.3.1.2 Great Blue Heron

The great blue heron is dependent on lakes and ponds and is generally a lowland species. Following the default riparian management area widths, as referenced in section 2.4.5 of the FSP, especially with respect to protection around lakes, will capture a significant portion of this habitat.

Breeding habitat is often lowland sites with deciduous forest, preferably red alder *(Accounts and Measures for Identified Wildlife – Great Blue Heron, 2004)*. These sites often overlap with Moose Winter Range areas, so it is expected that the strategies for moose will also benefit the Great Blue Heron.

SD3.3.1.3 Grizzly Bear

As of February 2006, habitat amount, attributes, or distribution have not been described for grizzly bear on the North Coast. As a result, there are no strategies or results required in the FSP.

As noted in the IWMS, grizzly bears only inhabit the mainland portions of the North Coast Forest District. Grizzly bears tend to forage in non-forested or patchy forest types[6], so a wide variety of seral stages and opening sizes will likely be of benefit to the forage needs of this species. However, with the increased access to grizzly habitat that comes with forest development comes an increase in hunting pressure, often offsetting any forage opportunities; fortunately, the geography of the area means that most of the North Coast will remain isolated and inaccessible to the average person, so hunting pressure is not likely an issue of concern.

Grizzly bear and moose share many similar forage requirements[7], so result **NC-07**, which addresses stocking standards within Moose ungulate winter range will also provide some benefit to grizzly bear. The dependence of grizzly bear on a range of seral and patch sizes means that this species will also benefit from strategy **NC-13**, which addresses marbled murrelet and Queen Charlottes goshawk habitat needs. The strategy **NC-16**, which addresses old growth, will also ensure that grizzly bear habitat opportunities are well-distributed across the landscape.

SD3.3.1.4 Keen's Long-eared Myotis

The Keen's long-eared Myotis is a small bat that is dependent on mature or old-growth forests, with a preference for hibernation in caves (karst features)[8]. Limestone-dominated sites therefore have potential for possible Myotis habitat features, and it would be prudent to identify those features when they are discovered. The ability for karst features to be protected under GAR s. 5 would also allow protection of hibernation areas for the Myotis.

Keen's long-eared Myotis does not seem to have a far reaching range[9], and will benefit from a good distribution of mature and old forest, as required through strategies **NC-13** and **NC-16** and result **NC-14**.

SD3.3.1.4 Marbled Murrelet

The marbled murrelet is dependent on large trees within old forests for its nest sites. In addition to the old forest that exists outside of the timber harvesting landbase, the strategy **NC-16**, which maintains the old growth proportion by landscape unit, will ensure that this old forest structure is maintained, which should include areas with potential nesting sites. In addition, strategy **NC-13** will ensure a distribution of patch sizes is found on the landscape: this should reduce the amount of forest fragmentation, which is likely better for the murrelet[10].

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[6] Accounts and Measures for Managing Identified Wildlife - Grizzly Bear (2004)
[7] B Pollard, RPBio, Personal Communication.
[8] Accounts and Measures for Managing Identified Wildlife – Keen's long-eared Myotis (2004)
[9] ibid
[10] *Accounts and Measures for Identified Wildlife – Marbled Murrelet, 2004*

Candidate wildlife habitat areas (WHA) have been identified by MOE[11] for marbled murrelet and are shown on the FSP maps. These areas meet the habitat amount, distribution, and attributes requirements of the Notice for Marbled Murrelet; however, they have no legal status as of February 2006. Field verification of these candidate WHAs is ongoing by MOE. If some or all of the candidate areas become approved WHAs, the FSP Holders will abide by the general wildlife measures established for the WHAs. In the interim, the FSP Holders will respect these candidate areas by following strategy **NC-12**.

SD3.3.1.4 Queen Charlotte Goshawk

Queen Charlotte goshawk shares many of the same habitat needs as marbled murrelet[12]. A WHA has been established for the goshawk that addresses some of the habitat amount, attributes, and distribution requirements of the Notice for Queen Charlotte goshawk. The primary consideration in establishing additional WHA area would be if a goshawk nest were to be discovered; however, there are no plans for a program to find goshawk nests in the North Coast[13].

Without any confirmation of goshawk nesting sites, the candidate WHAs identified for marbled murrelet are also considered to meet the habitat needs of the Queen Charlotte goshawk, and strategy **NC-12**.

SD3.3.1.5 Wolverine

The wolverine is not dependent on any particular habitat type. However, this carnivore is primarily a carrion feeder that often depends on ungulates as a food source[14]. As a result, the wolverine's range will often overlap with moose or mountain goat winter range, so it is expected that the strategies for moose (**NC-07**, **NC-08**, **NC-09**) and goat ungulate winter range (**NC-10**, **NC-11**) will also benefit the wolverine.

SD3.3.2 Regionally important species

Under section 13(2) of the GAR, the Ministry of Environment can identify regionally important species.

As of February 2006, there have been no regionally important species identified for the North Coast Forest District.

SD3.3.3 Specified ungulate species and associated Ungulate Winter Range

Under section 13(3) of the GAR, the Ministry of WLAP (now MOE) has identified the following as ungulate species for which an ungulate winter range may be required.

- Mule and black-tailed deer
- White-tailed deer
- Elk
- Mountain Goat
- Caribou
- Bighorn Sheep
- Thinhorn sheep
- Moose

Only mountain goat and moose are identified as requiring ungulate winter range management in the North Coast TSA.

Notices providing descriptions of the habitat area, distribution, and attributes for ungulate species were made available by the Ministry of WLAP in December 2004 for Mountain Goat and Moose.

Proposed ungulate winter range (UWR) mapping exists for the area covered by the NC LRMP.

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[11] A. Hetherington. Personal communication
[12] Doyle, 2005
[13] ibid
[14] *Accounts and Measures for Identified Wildlife – Wolverine, 2004*

SD3.3.3.1 Mountain Goat Ungulate Winter Range

The description of the area, distribution, and attributes of mountain goat UWR in the North Coast Forest District correlates with mapping of proposed mountain goat UWR for the area, and this mapping is shown on the FSP maps.

The objectives of the North Coast LRMP for goat UWR are as follows:

- Maintaining the structural and functional quality of mountain goat habitat; and
- Minimizing disruption and potential mortality to goats resulting from access.

These objectives are met through the strategies and results in **NC-10** and **NC-11**: they place limits on the type of activities, and the mapped UWR that is referred to by the strategy already includes an amount of forage area. In addition, forage areas near the UWR mapped polygons that are outside of the polygons are often non-forested and would not be of interest to the FSP Holders.

As with grizzly bear, with the increased access to mountain goat UWR associated with forest development comes an increase in hunting pressure. Fortunately, the geography of the area means that most of the North Coast will remain isolated and inaccessible to the average person, so hunting pressure concerns are somewhat limited.

SD3.3.3.2 Moose Ungulate Winter Range

The description of the area, distribution, and attributes of moose UWR in the North Coast Forest District correlates with mapping of proposed moose UWR for the area, and this mapping is shown on the FSP maps.

The North Coast LRMP notes that the risk for adverse impacts to moose from resource development is very low, and this is reflected in the UWR notice for moose, which indicates that the moose UWR area is to have no impact on timber supply. Strategy and result **NC-08** addresses security and maintenance of moose winter populations by requiring that winter range be avoided wherever possible by limiting activities to occur during the months of April to November. If activities are necessary beyond those dates, an evaluation by a qualified professional is required.

A primary consideration for moose UWR is the production of forage for moose. Result **NC-07** provides for a stocking standard that can be used within moose UWR. This will encourage increased forage production by allowing cluster planting and/or reduced stocking in several rich and wet ecosystems (see FSP Appendix A Table A2). When ecosystem classification identifies a complex (mappable or not) that contains at least 20% of an identified richer or wet ecosystem, the area can be included in a standards unit that manages for moose forage.

SD3.3.4 Wildlife Habitat Areas

In accordance with section 10 of the Government Actions Regulation, the MOE can specify wildlife habitat areas and objectives for wildlife habitat areas. As of January 2005, there are three wildlife habitat areas established in the North Coast Forest District:

- Alder Creek
- Agate Creek
- Scotia River

These WHAs address the habitat amount distribution and attribute requirements for coastal tailed frog and partially address the requirements for Queen Charlotte goshawk.

WHAs for marbled murrelet are being evaluated, and should be proposed sometime in 2006[15]. As noted in previous sections, these candidate WHAs are shown on the FSP maps and are used to ensure that the habitat amount, distribution, and attribute requirements for marbled murrelet and Queen Charlotte goshawk are met.

[15] Personal communication. A. Hetherington January 20, 2006

SD3.3.5 Wildlife Habitat Features

In accordance with GAR section 11, the MOE can specify wildlife habitat features. However, as of February 2006, there are no wildlife habitat features set for the area covered by the FSP.

SD3.3.6 General Wildlife measures

In accordance with GAR section 9, the MOE can specify general wildlife measures.

In June 2004, an updated version of the Identified Wildlife Management Strategy (IWMS) was released, providing an accounting of, and including general wildlife measures for, the management of species at risk identified in the May 6, 2004 notice.

These accounts and measures are excellent background information, and have influenced the strategies and results for wildlife in this FSP.

SD3.3.7 Conservation Data Center Red- and Blue-listed Species

As of February 2006, the CDC lists ten animal and five plant species as red-listed (extirpated, endangered, or threatened), and nineteen animal and sixteen plant species as blue-listed (of special concern). The species identified through GAR are included in this CDC list, and are dealt with in the FSP.

Note that BC Timber Sales addresses the remaining red- and blue-listed species through operational controls under the BCTS Environmental Management System (EMS).

Conservation Data Center: Red- and Blue-listed wildlife species (Data current as of Feb 21, 2006; sorted by English name)	**Identified Wildlife Species (GAR)**
Red-listed Vertebrate Animals	
Common Murre	
Horned Puffin	
Keen's Long-eared Myotis	Yes (May 2004)
Killer Whale (Northeast Pacific resident population)	
Killer Whale (West Coast transient population)	
Marbled Murrelet	Yes (May 2004)
Northern Goshawk, *laingi* subspecies	Yes (May 2004)
Northern Sea Lion	
Pelagic Cormorant, *pelagicus* subspecies	
Western Grebe	
Blue-listed Vertebrate Animals	
Ancient Murrelet	Yes (May 2004)
Canada Goose, *occidentalis* subspecies	
Cassin's Auklet	
Coastal Tailed Frog	Yes (May 2004)
Cutthroat Trout, *clarki* subspecies	
Dolly Varden	
Double-crested Cormorant	
Eulachon	
Fisher	
Great Blue Heron, *fannini* subspecies	Yes (May 2004)
Grey Whale	
Grizzly Bear	Yes (May 2004)
Humpback Whale	
Killer Whale (Northeast Pacific offshore population)	
Peregrine Falcon, *pealei* subspecies	
Sandhill Crane	
Tufted Puffin	
Western Screech-Owl, *kennicotti* subspecies	
Wolverine, *luscus* subspecies	Yes (May 2004)

Conservation Data Center: Red- and Blue-listed wildlife species (Data current as of Feb 21, 2006; sorted by English name)	**Identified Wildlife Species (GAR)**
Red-listed Vascular Plants	
Long-leaved Aster	
Arctic daisy	
White-lip rein orchid	
Alaska holly fern	
Graceful arrow-grass	
Blue-listed Vascular Plants	
Arctic rush	
Bog adder's-mouth orchid	
Bog rush	
Dotted saxifrage	
Dune bentgrass	
Dwarf bog bunchberry	
Flowering quillwort	
Four-leaved mare's-tail	
Gmelin's sedge	
Kamchatka spike-rush	
Lesser saltmarsh sedge	
Meadow arnica	
Menzies' burnet	
Queen charlotte butterweed	
Two-edged water-starwort	
Yellow marsh-marigold	

Conservation Data Center: Red- and Blue-listed Ecological Communities (Data current as of Feb 21, 2006; sorted by English name)	**Biogeoclimatic Ecosystem Classification**
Red-listed communities	
Lodgepole pine / kinnikinnick	CWHws1/02, CWHws2/02
Pearly everlasting - leafy aster	MHmm1/00
Purple reedgrass Herbaceous Vegetation	AT,MHmmp/00
Sitka spruce / false lily-of-the-valley Wet Hypermaritime 1	CWHvh2/08, CWHwh1/07
Sitka spruce / salmonberry Very Wet Maritime	CWHvm1/09
Sitka spruce / salmonberry Wet Submaritime 1	CWHws1/07
Sitka spruce / tall trisetum	CWHvh1/09, CWHvh2/09, CWHwh1/08
Spreading phlox - Wallace's selaginella	MHmm1/00
Blue-listed communities	
Amabalis fir - Sitka spruce / devil's club	CWHvm1/08, CWHvm2/08
Amabalis fir - western red cedar / devil's club Moist Submaritime	CWHms1/06, CWHms2/06, CWHws1/06
Amabalis fir - western red cedar / oak fern	CWHms1/04, CWHms2/04, CWHws1/04, CWHws2/04
Black cottonwood / red-osier dogwood	CWHdm/09, CWHds1/09, CWHds2/09, CWHmm1/09, CWHms1/08, CWHms2/08, CWHvm1/10, CWHwm/06, CWHws1/08, CWHws2/08, CWHxm1/09, CWHxm2/09
Northern mannagrass Fen	CWHvh2, ESSFdv, MSxv, SBPSxc
Red alder / false lily-of-the-valley	CWHvh1/10, CWHvh2/10
Sitka spruce - mountain hemlock / Pacific reedgrass	MHwh1/03, MHwh2/03
Sitka spruce / Oregon beaked-moss	CWHvh1/15, CWHvh2/15, CWHwh1/14
Sitka spruce / Pacific crab apple	CWHvh1/19, CWHvh2/19, CWHwh1/18

Conservation Data Center: Red- and Blue-listed Ecological Communities (Data current as of Feb 21, 2006; sorted by English name)	Biogeoclimatic Ecosystem Classification
Sitka spruce / Pacific reedgrass	CWHvh1/16; CWHvh2/16; CWHwh1/15
Sitka spruce / salmonberry Wet Maritime	CWHwm/05
Sitka spruce / salmonberry Wet Submaritime 2	CWHws2/07
Sitka spruce / skunk cabbage	CWHwm/09
Sitka spruce / slough sedge	CWHvh1/18; CWHvh2/18; CWHwh1/17
Sitka spruce / sword fern	CWHvh1/17; CWHvh2/17
Western hemlock / common green peat-moss	CWHwm/08
Western hemlock - Sitka spruce / lanky moss	CWHvh1/04; CWHvh2/04; CWHwh1/01; CWHwh2/01
Western hemlock - Sitka spruce / step moss	CWHwm/02
Western red cedar - Sitka spruce / devil's club Very Wet Hypermaritime 2	CWHvh2/07
Western red cedar - Sitka spruce / skunk cabbage	CWHdm/12; CWHds1/12; CWHds2/12; CWHmm1/12; CWHms1/11; CWHms2/11; CWHvh1/13; CWHvh2/13; CWHvm1/14; CWHwh1/12; CWHwh2/06; CWHws1/11; CWHxm1/12; CWHxm2/12
Western red cedar - Sitka spruce / sword fern	CWHvh1/05; CWHvh2/05; CWHwh1/03
Western red cedar - western hemlock / sword fern	CWHmm1/04; CWHmm2/04; CWHvm1/04; CWHvm2/04
Yellow-cedar - mountain hemlock / rosy twisted stalk	MHwh1/05; MHwh2/05

SD3.4 Water

Water protection issues focus on the maintenance of water quality throughout the area in this plan. This FSP is consistent with In the North Coast LRMP management intent for water, as discussed in the LRMP's Aquatic and Riparian Ecosystems section: "to maintain the productive capacity of aquatic ecosystems throughout the plan area ... by sustaining natural water quality and quantity, and sustaining natural stream form and function."[16]

It is the intent of the FSP Holders to conduct activities in a manner that limits any adverse effects on water quality and maintains the aquatic biological productivity of fish streams. By following the default provisions for riparian classes, as described in **section 2** of the FSP, adequate buffers will be retained along streams, wetlands and lakes to protect water quality and fish habitat.

There are many ways to conduct development activities to minimize adverse affects on water quality:

1. For roads in a partially built state, maintain drainage and stability at season's end.
2. Conduct road construction operations during appropriate construction windows.
3. Conduct road construction operations in snow-free conditions (except winter roads).
4. Ensure adequate yarding deflection has been achieved during the engineering phase.
5. Conduct winter ground-based harvesting operations on frozen ground and/or sufficient snowpack in areas of wet ground and/or fine-textured soils.
6. Utilize site sensitive ground-based harvesting systems during summer or winter operations where soil conditions dictate.

Immediate action will be taken to mitigate any adverse impacts on water quality and fish habitat that may occur during forestry operations.

[16] North Coast LRMP, Table 10

SD3.4.1 Riparian Management Areas

Riparian Management Areas (RMAs) are areas adjacent to streams, lakes and wetlands that are classifiable under the *Forest and Range Practices Act*. RMAs contain both high value timber and non-timber resources. Depending on the riparian classification, the RMA consists of a Riparian Reserve Zone (RRZ) and/or a Riparian Management Zone (RMZ). The identification and assessment of the RMA habitat and its incorporation into operational plans is critical to the management and conservation of riparian resources.

The objective of the RMA is to conserve intact riparian habitats across the landscape and to protect those plants, animals and ecosystems that are dependent on riparian habitats. All classifiable riparian features will have a RMA established and any forestry operations prescribed within the RMA will ensure the conservation of water quality, fish and wildlife habitat, and biodiversity.

The FSP Holders have elected to follow the defaults outlined in sections 47- 51, 52(2), and 53 of the Forest Planning and Practices Regulation, as noted in section 2 of the FSP. This is consistent with the objective set by government for water within riparian areas (FPPR section 8).These defaults can be summarised as follows (refer to the actual legislation for full details):

Streams

Riparian Class	*Stream width*	*Fish stream*	*RMA: Riparian Management Area = RRZ+RMZ (slope distance)*	*RRZ: Riparian Reserve Zone (slope distance)*	*RMZ: Riparian Management Zone (slope distance)*
S1-A	*> 100 m*	*Yes*	*100 m*	*0*	*100 m*
S1-B	*20 - 100 m*	*Yes*	*70 m*	*50 m*	*20 m*
S2	*5 - 20 m*	*Yes*	*50 m*	*30 m*	*20 m*
S3	*1.5 - 5 m*	*Yes*	*40 m*	*20 m*	*20 m*
S4	*< 1.5 m*	*Yes*	*30 m*	*0*	*30 m*
S5	*> 3 m*	*No*	*30 m*	*0*	*30 m*
S6	*< 3 m*	*No*	*20 m*	*0*	*20 m*

Retain enough trees (in riparian management zones) to maintain channel stability along S4, S5, and S6 streams that are direct tributaries to S1, S2, or S3 streams

Wetlands

Riparian Class	*Wetland area*	*RMA (slope distance)*	*RRZ (slope distance)*	*RMZ (slope distance)*
W1	*> 5 ha*	*50 m*	*10 m*	*40 m*
W2	*Not in the North Coast*			
W3	*1 – 5 ha*	*30 m*	*0*	*30 m*
W4	*0.5 – 1 ha*	*30 m*	*0*	*30 m*
W5	*Complex of wetlands > 5ha*	*50 m*	*10 m*	*40 m*

Lakes

Riparian Class	*Lake area*	*RMA (slope distance)*	*RRZ (slope distance)*	*RMZ (slope distance)*
L1-A	*> 1000 ha, or designated*	*0*	*0*	*0*
L1-B	*5 – 1000 ha*	*10 m*	*10 m*	*0*
L2	*Not in the North Coast*	*30 m*	*10 m*	*20 m*
L3	*1 – 5 ha*	*30 m*	*0*	*30 m*
L4	*0.5 – 1 ha*	*30 m*	*0*	*30 m*

Retain trees in riparian reserve zones (unless specific conditions apply)

Locate roads outside of riparian management areas, except at stream crossing

Under ecosystem-based management (EBM), these riparian widths are projected to change to a locally derived width, based on local tree heights. If EBM legal objectives are established, then the FSP will be amended to incorporate EBM widths. See **section SD4.3** for more information on what EBM would look like.

Part of the challenge when managing and conserving RMA habitat in the North Coast Forest District is managing the risk of windthrow. In some cases, it may be more beneficial to clear cut immediately up to the riparian feature to avoid having retained timber blow down and negatively impact water quality or the habitat. In other cases, the habitat value may be high enough to warrant prescribing a wider RMZ than the minimum. This is the kind of habitat that is described in EBM as "high value fish habitat". Strategies for reducing the risk of windthrow will be considered where the windthrow risk in the RRZ is moderate to high. Any windthrow management strategy will consider the non-timber resource values in the RMA.

The following identifies some of the common practices that will generally be prescribed in RMZs.

Riparian Classification	***General Management Practices***
S1, S2, S3 streams	The primary objective of the RMZ for these streams is to reduce the risk of windthrow in the reserve zone, and provide opportunities for meeting wildlife tree objectives. Generally, no harvesting will occur in RRZs except for road construction, the clearing of full suspension yarding corridors, the falling of danger trees, or other activities to meet the management objectives of non-timber resources. Salvage operations may occur where the operation results in a condition that is consistent with the management objectives of non-timber resources in the RRZ. Where there is a moderate to high risk of windthrow in the RRZ, feathering of the RMZ will be considered where suitable wind firm trees exist in the RMZ. Where no suitable wind firm trees exist, other treatments such as top pruning or crown thinning treatments may be prescribed within the RMZ and/or RRZ. Where these treatments are not suitable for protecting the RRZ from windthrow, options for the relocation and/or redesign of the boundary will be considered. Retention within the RMZ will be as per Result **NC-25**
S4 streams	Where required to maintain stream bank stability, to protect fish habitat, and maintain down stream water quality, and where wind firm trees exist, a sufficient number of trees will be retained, otherwise all merchantable trees may be harvested. Non-merchantable trees, understory deciduous trees, shrubs, and herbaceous vegetation within ~5 m of the stream channel will be retained to the fullest extent possible. Retention within the RMZ will be as per Result **NC-25**
S5, S6 streams	Where required to maintain stream bank stability and maintain down stream water quality, and where wind firm trees exist, a sufficient number of trees will be retained, otherwise all merchantable trees may be harvested. Non-merchantable trees, understory deciduous trees, shrubs, and herbaceous vegetation within ~5 m of the stream channel will be retained to the fullest extent possible. Retention within the RMZ will be as per Result **NC-25**

Riparian Classification	*General Management Practices*
Wetlands and Lakes (all classes)	For those lakes and wetlands that have a RRZ, the primary objective of the RMZ is to maintain the integrity of the RRZ. Where there is a moderate to high risk of windthrow in the RRZ, feathering of the RMZ will be considered if suitable wind firm trees exist in the RMZ. Where suitable wind firm trees do not exist for protecting the RRZ from windthrow, options for the relocation and/or redesign of the boundary will be considered. For lakes and wetlands without a RRZ, the RMZ will function to maintain important wildlife habitat values adjacent to the riparian feature. The distribution and level of retention within the RMZ will be dependent on the site characteristics, stand conditions, windthrow hazard management, and wildlife habitat features. Important wildlife features such as major game trails, licks, denning sites and moist understory vegetation habitat will be buffered to maintain cover or visual screening. Lakes and wetlands without a RRZ, within the RMZ non-merchantable trees, understory deciduous trees, shrubs, and herbaceous vegetation within ~5 m of the lake or wetland feature will be retained to the fullest extent possible. Retention within the RMZ will be as per Result **NC-25**

SD3.4.2 Lakeshore Management Zones

In accordance with the *Government Actions Regulation* (GAR) section 6, the Minister of Forests and Range can specify lakeshore management areas and objectives. However, as of February 2006, no lakeshore management zones have been established within the area covered by this FSP.

SD3.4.3 Community watersheds

In accordance with GAR section 8, the Minister of Agriculture and Lands can designate a community watershed, and the Minister of Environment can specify water quality objectives for a community watershed.

As of February 2006, the following Community Watersheds have been designated within the North Coast Forest District (several of these community watersheds do not fall within FDUs in this FSP, but are listed for information purposes):

Community Watershed	Community supplied	Forest Development Unit
Axe Creek	Greenville	n/a
Stumaun Creek	Port Simpson	N7
Shawatlan River-Woodworth	Seal Cove, Prince Rupert	N7
Dodge Creek	Digby Island	N7
Wolf Creek	Port Edward	n/a
Gabion [Dodge River]	Hartley Bay	n/a

Strategy **NC-15** provides for activities within community watersheds; however, it is unlikely that any activities will occur within the community watersheds that overlap with FDUs in this FSP: the Stumaun Creek watershed is almost entirely within the Port Simpson reserve lands, and the portion that is outside of the reserve lands is not forested; Shawatlan/ Woodworth is within a protected area; and the Dodge Creek watershed is quite small, meaning that harvesting is unlikely to occur.

As of October 2005, there are no established water quality objectives for community watersheds within the area covered by this FSP.

SD3.5 Fish

The fisheries resource in the North Coast Forest District is of prime importance in the area. Anadromous salmonids are found in nearly all main river systems. Non-anadromous salmonids are also present in most large creeks and rivers that have a low gradient (<20%). The resource supports a commercial, recreational, and a First Nation's fishery.

This FSP is consistent with In the North Coast LRMP management intent for fish, as discussed in the LRMP's Aquatic and Riparian Ecosystems section, which includes the following management intent descriptions:

- "Maintain the productive capacity of aquatic ecosystems throughout the plan area, including all fish habitat, by sustaining natural water quality and quantity, and sustaining natural stream form and function.
- Ensure protection of riparian habitat to provide sufficient salmon resources to meet local and First nations needs
- Maintain the productive capacity of riparian ecosystems, and a natural abundance of fish, and wildlife, by retaining structural and functional integrity"[17]

The BC Ministry of Environment and the federal Department of Fisheries and Oceans are the government agencies responsible for managing the fisheries resource. These agencies have the mandate to ensure that the productive capacity of fish bearing waters is maintained. The FSP Holders are committed to maintaining the aquatic biological productivity of all anadromous and resident fish bearing streams within the Forest Development Units. This will be achieved through the identification of fish streams and proper planning designed to avoid damage to fish habitat.

The FSP is referred to DFO for their comments. Operational concerns or issues raised may lead to field trips to review areas of concern or special significance. MOE has declined the opportunity to review the FSP.

The operating windows identified in the *Skeena Region Reduced Risk In-stream Work Windows and Measures*, and the *A User's Guide to Working in and Around Water* document produced by the Ministry of Environment will be considered as "best available information". Any operations conducted outside these identified windows will include additional measures, as required, to ensure fish and fish habitat are protected.

Road construction, modification, maintenance, deactivation and timber harvesting operations will utilize techniques required to limit sediment entering known fish streams or streams that flow directly into known fish streams.

During operations, the FSP Holders will provide contractors with information on any special practices and measures to ensure stream bank integrity is maintained and fish habitat is protected. Regular road maintenance, repair and cleaning of debris from culverts and streams, and careful logging practices are all ways to ensure that fish habitat is not adversely impacted.

SD3.5.1 Riparian Management

Riparian areas occur adjacent to streams, lakes and wetlands. These include areas dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence upon them. Riparian management focuses on the maintenance of riparian zones for fishery, water and wildlife resources. The primary objective is to minimize or prevent impacts to these important resources.

The FSP provides for two components for riparian management areas (RMA), i.e. riparian reserve zones (RRZ) and riparian management zones (RMZ) - see tables in section SD3.4 above. Usually, timber harvesting is not permitted in riparian reserve zones; however, harvesting can occur in riparian management zones although constraints may apply.

[17] North Coast LRMP, Table 10

Under ecosystem-based management (EBM), management buffers in these riparian management areas are projected to change, using widths based on a locally derived number based on local tree heights. If EBM legal objectives are established, then the FSP will be amended to incorporate EBM widths. See **section SD4.3** for more information on what EBM would look like.

SD3.5.1.1 Streams

The critical consideration for streams is maintenance of stream bank integrity. Generally, this is accomplished through the RMA, which is defined in the default criteria for riparian areas (as noted in section 2 of the FSP). For streams without an RRZ, the FSP Holders will maintain streambank integrity through careful logging practices (e.g. fall and yard away), location of machine-free zones, or retention of some amount of stems around the stream. This last method is commonly referred to as basal area (BA) retention. The amount of retention will vary for different stream types, but the most important streams that BA retention would apply to are S4 streams, as they are fish-bearing but do not have an RRZ. Result **NC-25** describes the retention amounts for streams, lakes and wetlands.

The basal area retention prescribed at the stand level (e.g. site plan) may vary and is dependent on a multitude of site specific factors, including:

- Harvest system utilized.
- Existing topography of adjacent wetted perimeter and upland ground.
- Windthrow risk.
- Timber soundness/safety concerns.
- Stream/reach value.
- Wildlife habitat value.
- Erosion/sedimentation/stability risk.

For all stream classes, the FSP Holders do not attempt to address the level of basal area retention in riparian management zones in a spatially uniform manner. The FSP Holders accomplish riparian management zone retention by extending reserve (no harvest) zone boundaries into management zone areas. Extended reserve zones are a common occurrence since site specific factors, such as natural topographic features (e.g. top of gorge/gully) and stand structural changes play a significant role in the location of harvesting boundaries.

Forest development may occur in close proximity or adjacent to all stream classes (S1 - S6). For S1, S2, and S3 streams, no harvesting activity will be planned in the riparian reserve zones. A range of basal area retention in riparian management zones may occur depending upon the windthrow hazard. While the limits are defined in Result **NC-25**, the location of the retention is a site specific issue and will be determined at the field layout stage. Reserve zones for S4, S5 and S6 streams are not required, but may be established in order to maintain windfirm trees for streambank stability. This will also be assessed at the field layout phases. S6 streams represent the majority of the streams encountered throughout the licence area.

To manage and conserve the timber and non-timber resources within RMAs, various management prescriptions will be prescribed, and where timber harvesting is planned a variety of silviculture systems and/or treatments will be prescribed. As a minimum, the widths of RMAs will follow those specified in the FSP. Wider RMAs will be prescribed when required to manage and conserve high valued riparian habitat, e.g. a sensitive fish population, or to protect unstable stream banks. Site specific strategies will be determined during site plan and/or road layout and design preparation.

During the planning stage, streams and riparian areas within or adjacent to proposed cutblocks and roads will be identified and classified in accordance with this FSP. The location of fish bearing streams will be clearly marked on operational maps, and where necessary, appropriate machine free zones may also be prescribed. The FSP also provides for riparian reserves and riparian

management zones. Stream classifications shown on maps are based on RIC[18] and non-RIC standard fisheries inventories and field assessments of individual cutblocks.

SD3.5.1.2 Wetlands and Lakes

The same approach to riparian zone boundary determination will be utilized for wetlands and lakes as described in the section SD3.5.1.1 above. Stand structural changes and natural topographic features also play a key role in the location of management zone boundaries.

For all classes of wetlands and lakes, the minimum level of basal area retention is noted in result **NC-25.**

SD3.5.2 Fisheries Sensitive Watersheds

In accordance with section 14 of the *Government Actions Regulation*, the MOE can identify a fisheries sensitive watershed and set objectives for such a watershed. However, there are no fisheries sensitive watersheds in the area covered by the FSP.

SD3.6 Biodiversity

Biodiversity (biological diversity) means the biological diversity of plants, animals and other living organisms in all their forms and levels of organization, including the biological diversity of genes, species and ecosystems[19]. Two levels of biodiversity are considered: landscape and stand level. At the landscape level, watershed areas are amalgamated into Landscape Units, which are assigned either a low, medium, or high biodiversity emphasis in which "high" has the greatest importance for managing and conserving biological diversity. Stand level biodiversity is more site specific and includes the requirement to retain wildlife tree patches across the landscape, but also may include designating old growth management areas (OGMAs).

The Minister of Sustainable Resource Management (now MOE) made an *Order Establishing Provincial Non-Spatial Old Growth Objectives*, effective June 30, 2004.

The North Coast LRMP management intent for "coarse filter" biodiversity is "to maintain the natural biodiversity of the North Coast LRMP area, including the full range of functional ecosystems, over time and at all scales."[20] The NC LRMP also assumes that biodiversity will be captured through ecosystem-based management (EBM). Under EBM, management of several additional factors is likely to occur. For instance, red-and blue-listed ecological communities, rare and very rare site series, and stand-level retention are likely items that will be brought into a legally-defined EBM regime, and if this occurs, the FSP will be amended to be consistent with the legal EBM objectives. See **section SD4.3** for more information on what EBM would look like.

SD3.6.1 Landscape-level Biodiversity

SD3.6.1.1 Old Growth

The *Order Establishing Provincial Non-Spatial Old Growth Objectives*, effective June 30, 2004, establishes landscape units (LU) and biodiversity emphasis for each LU and retention levels for old growth by natural disturbance type. The Order requires an analysis of each LU with respect to the amount of old growth remaining by biogeoclimatic ecological classification.

Mature (older than 120 years) and old growth (older than 250 years) forests are represented on

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[18] Resource Inventory Committee
[19] FPPR section 1
[20] North Coast LRMP, Table 12

the FSP maps by the "other Crown forests" category. Most of these forests are old growth.

The Strategy **NC-16** addresses the Old Growth Order by providing a process that is consistent with the targets in the Order, and by allowing for the designation of spatial old growth management areas (OGMAs). Strategy **NC-13** and result **NC-14** also incorporate the amount of old growth in the analysis of seral stages by LU.

SD3.6.1.2 Cut blocks or patches larger than 60 hectares

The FSP Holders have elected a practice requirement (*FPPR s 64*) that restricts cutblocks to a maximum size of 60 ha, unless they are designed to be consistent with the structural characteristics and the temporal and spatial distribution of natural openings.

- Patch size distributions for each FDU are being developed in accordance with strategy **NC-13**. The target patch size distributions will be identified. The goal is to plan development within operating areas so the distributions move towards target levels over time, though they may not be achieved during the term of this FSP.
- A seral stage distribution is being developed in accordance with strategy **NC-13** for each BEC variant by draft Landscape Unit (for areas within FDUs only). The target seral stage distribution will be identified. The goal is to plan development within operating areas so the distribution moves towards target levels over time, though it may not be achieved during the term of this FSP.

SD3.6.2 Stand-level Biodiversity

SD3.6.2.1 Wildlife Trees

At the stand level, important stand structural attributes will be preserved through the retention of wildlife tree patches and individual wildlife trees. Snags, culls and veterans provide valuable habitat for cavity nesting birds, raptors and small mammals while contributing to vertical density. Measures that were previously listed under water (**section SD3.4**), wildlife (**section SD3.3**), and fish (**section SD3.5**) contribute to the management of biodiversity.

For the FDUs within this FSP, default practices (FPPR s. 66, 67) for wildlife tree retention have been elected.

WTPs are planned on a site-specific basis and usually identified first during the reconnaissance phase of block layout. Wherever possible, WTPs will be located in constrained areas such as: inoperable areas, riparian management areas, unstable terrain, gullies, and scenic areas.

The following are characteristics and habitat attributes that are looked for when evaluating the wildlife habitat of individual trees:

- internal decay,
- crevices,
- large brooms,
- active or recent use,
- current insect infestation,
- large nests,
- hunting perch,
- bear den,
- largest tree on site,
- locally important tree species.

Areas with a range of tree species and sizes will be prescribed for WTP designation before areas with a simple stand structure. Wildlife tree patches will be designed to protect those trees with valuable wildlife tree attributes. If there are no wildlife trees within or adjacent to a cutblock then WTPs will be located for long-term recruitment of wildlife trees and/or CWD, or as a minimum be representative of the pre-harvest stand conditions. This may result in the inclusion of both

deciduous and coniferous species in the WTP. Where practicable, WTPs will be located in areas that would contribute to the conservation of rare plant communities and ecosystems.

WTPs will also be located to reduce the risk of windthrow. In high windthrow risk areas, WTPs will be designated in the most wind firm timber, or WTPs will be designated in areas of lower habitat value but in a more wind firm location. Timber with a relatively low height to diameter ratio will be identified for WTP designation wherever practicable. It is expected and biologically acceptable to have some windthrow on the fringe of WTPs.

Wildlife tree patches should be retained for a minimum of one rotation. Minor salvage will generally not occur in WTP areas, but if there is to be some salvage of a WTP, it will be replaced with equivalent suitable habitat as close to the original WTP as possible. Since one of the objectives of retaining WTPs is to recruit future CWD, WTPs will not be replaced if they are subject to windthrow and not salvaged. It is important to note that strategy **NC-24** allows the removal of some trees from WTPs for cultural purposes.

SD3.7 Cultural Heritage Resources

Cultural heritage resources include activities or items that are of continuing importance to a group of people, whether aboriginal or non-aboriginal. Cultural heritage resources can include

- traditional uses and practices
- sites or areas that are of cultural importance
- archaeological sites, although these will be managed through the *Heritage Conservation Act*.

Aboriginal interests and traditional practices generally include the use of lands for specific activities integral to the culture of aboriginals. Archaeological resources are sites that contain evidence of past human activity. Aboriginal sites that are dated prior to 1846 are considered to be archaeological sites.

To facilitate preparation of this FSP, traditional use information is reviewed. Where traditional use information is not available, it is requested from the First Nation group(s), or Nisga'a Lisims Government, and/ or the Ministry of Forests and Range under strategy **NC-19** or **NC-20**. This information is held in confidence, and is only used in the development of appropriate strategies or results. These strategies or results may not show up under the cultural heritage heading, as they may relate to first nation concerns over wildlife, fish, or another forest value.

Most of the North Coast LRMP Protection Areas have been provided with temporary protected area status[21], and are now in the process of receiving permanent protection status[22], and the NCLRMP will allow First Nations sustenance traditional and cultural uses within Protection Areas[23]. This ensures that an extensive landbase for First Nations cultural and traditional activities is maintained. It is important to keep in mind that this cultural landbase is much larger than the timber harvesting landbase, and the strategies and results in this FSP therefore will only address a small sub-set of First Nations' cultural needs.

The FSP Holders have also elected through strategies **NC-21** and **NC-22** and result **NC-23** to ensure that cultural heritage is considered in all activities by using traditional use information obtained from representatives of First Nations' groups, or Archaeological Overview Assessment information for the FSP area, to determine the need for site visits, preliminary field reconnaissance, and archaeological impact assessments. In addition, when field layout crews are aware and trained in identification of cultural features, a FSP Holder also minimizes the risk that cultural heritage resources will remain unidentified.

Section SD5 describes the interaction between FSP Holders and the First Nations groups that have made claim to the area covered by this FSP.

An archaeological overview assessment has been completed to determine the potential of archaeological

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[21] Forest Act: *North Coast Designated Areas Regulation* (BC Reg 303/2004)
[22] February 7, 2006 BC Government and Coast Forest Conservation Initiative announcement
[23] North Coast LRMP, pages iv, 54, 57, 60

resources within the North Coast Forest District[24]. Areas are rated as high, medium or low potential. Areas with moderate archaeological potential will undergo a preliminary field reconnaissance (PFR), which will allow an inventory of cultural resource potential as well as determine the need for an archaeological impact assessment (AIA). Areas with high archaeological potential will undergo an AIA prior to applying for authority to conduct timber harvesting operations.

If a PFR or AIA shows that cultural or archaeological resources are found within an area proposed for road construction or timber harvesting, development options will be reviewed to determine what changes can be made to mitigate any detrimental impacts to the cultural or archaeological resources. Options for archaeological resources are typically presented in the archaeological impact assessment reports. Where archaeological resources that are automatically protected by the *Heritage Conservation Act* need to be altered, an Alteration Permit is applied for and affected parties consulted.

This FSP is referred to the First Nations for their input and comments. The FSP Holders have FDUs distributed throughout the district. As a result, a FSP Holder reviews the plan with many different aboriginal groups to discuss the impacts of any aboriginal interests and traditional practices that exist on the FDUs in the Forest Stewardship Plan. The FDUs overlap the claimed territories of the Gitga'at (Hartley Bay), Gitxaala (Kitkatla), Haisla, Kitasoo/Xaixais, Lax Kw'alaams, and Metlakatla, and the traditional resource use areas of the Kitselas and Kitsumkalum.

The Nisga'a people have a signed treaty which includes Nisga'a Lands that are not part of the Skeena Business Area. Outside of Nisga'a Lands, a Nass Wildlife Area has been established, which is administered by the Nass Wildlife Committee (NWC) which includes representation from the Nisga'a Lisims Government. The FSP will be referred to the NWC as to a government agency.

In addition, input from representatives of the NLG has resulted in strategy **NC-20**. This strategy allows the identification, review, and update of information from the Nisga'a Lisims Government, in recognition of the Nisga'a Treaty requirement that the Nisga'a need to be informed of any potential activity that may impact the Nisga'a people[25]. This strategy is considered to be consistent with the objective for cultural heritage resources as the Nisga'a Final Agreement sets out section 35[26] rights of the Nisga'a people.

SD3.7.1 Traditional Uses and Activities

The following are some examples of traditional uses or activities that have been identified and their potential for being impacted by forestry activities are described in the following table.

Trapping

There are several species identified through objectives set by government (OSBGs) and Wildlife Notices for management under a Forest Stewardship Plan.

Generally, trapped species are not part of these identified species. However, management for the identified species does not focus on the species, but rather, on their habitat. These are generally keystone species, and the premise is that managing for their habitat will also ensure that habitat needs of almost all the other species in the area will be met. Therefore, the trapped species are indirectly managed.

In spite of habitat maintenance, however, trapping pressures may negatively affect a species; however, this is beyond a FSP, and would be handled through wildlife regulations, or in the case of cultural sustenance hunting, through voluntary limitation of trapping.

It is still valuable to note if there are areas of particular importance for cultural hunting activities: for example, information on whether trapped species are abundant or declining can help to determine if there is a need to provide feedback to the Ministry of Environment for adjustment of regulations, or to a First Nation community for voluntary restrictions.

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[24] Golder and Associates, 2000

[25] Nisga'a Final Agreement, Environmental Assessment and Protection Chapter (paragraph 6)

[26] Section 35 of the Constitution Act, 1982

Other information of value is the location of trapping cabins (may be captured through "camps/ campsites", below).

This cultural activity may be captured in the FSP through the OSBG for wildlife, and/or for the OSBG for cultural heritage resources.

Logging

The form and purpose of traditional logging is important to identify, as is the cultural desire of the First Nations: i.e. is it to be able to continue to carry out logging in a traditional style, or is it to continue to access to the materials that were made available through traditional logging activities?

The general intent of logging by First Nations was to provide building materials (i.e. for long houses, drying racks, etc), or to provide logs for totem poles or canoes. These uses can be addressed within the FSP, and a particularly useful piece of information would be the amount of materiel needed.

Cedar is the primary tree species utilised by First Nations, and often resulted in the marking of trees that became Culturally Modified Trees. For more discussion on Cedar and CMTs, see **sections SD3.7.2** and **SD3.7.3** below.

This cultural activity could be captured in the FSP through the OSBG for timber, and/or for the OSBG for cultural heritage resources.

Plant Gathering

If specific areas can be identified that have a cultural value as plant gathering sites (e.g. berry picking), there is the potential to address them through a result or strategy – therefore it is important to discuss and determine the expectations for management of the sites. Alternatively, if plant gathering is determined to be a landscape level value, then there may not be a site-specific result necessary, but a seral stage requirement instead to ensure that opportunities for plant gathering continue over the long-term.

Gathering of Cedar bark falls within this category, and is a significant activity carried out by First Nations that often resulted in Culturally Modified Trees. For more discussion on Cedar and CMTs, see **sections SD3.7.2** and **SD3.7.3** below.

Other information of value is the location of processing sites for berries (may be captured through "camps/ campsites", below).

This cultural activity could be captured in the FSP through the OSBG for cultural heritage resources.

Jigging areas

In current times, jigging is usually in relation to Halibut fishing, and to a lesser extent, cod: in both cases, jigging is a marine activity. Forestry activities under a FSP are unlikely to affect jigging opportunities, other than through the location of log holding areas – the identification and approval of these areas is handled outside of the FSP process (foreshore lease approvals).

It is unlikely that the FSP would address this cultural activity (outside of the FSP scope/ area)

Fishing areas

Fishing areas are probably identified in one of two ways: very specific sites that are of cultural importance (e.g. netting sites); or valleys/ river/ creek systems that are identified as having been of cultural importance for fishing. These are generally handled through set-backs and riparian management zones. For specifically identified sites, it is important to discuss and determine the expectations for management of the sites (e.g. there may be a desire to manage activities around a historical processing area related to a netting site).

This cultural activity could be captured in the FSP through the OSBG for riparian areas, and/or for the OSBG for cultural heritage resources.

Camps & campsites

Specific camps or campsites, if identified as being of cultural importance, can be addressed through the FSP. It is important to determine the management expectations for these sites. If the sites are pre-contact, they would also be covered by the *Heritage Conservation Act*.

This cultural activity can be captured in the FSP through the OSBG for cultural heritage resources.

Hunting

There are several species identified through OSBGs and Wildlife Notices for management under an FSP. Management does not focus on the species, but rather, on their habitat. These are generally keystone species, and the premise is that managing for their habitat will also ensure that habitat needs of almost all the other species in the area will be met, and therefore, the species will continue. In spite of habitat maintenance, however, hunting pressures may negatively affect a species; however, this is beyond a FSP, and would be handled through hunting regulations, or in the case of cultural sustenance hunting, through voluntary limitation of hunting.

It is still valuable to note if there are areas of particular importance for cultural hunting activities: for example, information on goats may affect spatial designation of Ungulate Winter Range.

Salmon

Salmon is of significant cultural importance, and is generally handled within the FSP in two ways: (1) identification of fishing areas (see above); or (2) maintenance of salmon stocks through fish habitat maintenance. Item (2) can be addressed in FSPs through riparian area management, or management of soils to limit sediment input.

Shellfish

Similar to jigging, shellfish gathering is a marine activity. Forestry activities under a FSP are unlikely to affect shellfish opportunities, other than through the location of log dumping sites – the identification and approval of these areas is handled outside of the FSP process (foreshore lease approvals).

Other information of value is the location of shellfish processing sites; again, this is unlikely to be affected by activities governed by the FSP.

Medicine

This topic includes the identification and collection of resources that can be used for traditional medicines. Generally, these will be medicinal plants. This item would be handled similarly to the traditional use of picking plants (see above).

If specific areas can be identified that have a cultural value as medicinal resource gathering sites or processing sites, there is the potential to address them through a result or strategy – therefore it is important to discuss and determine the expectations for management of the sites. Alternatively, if medicinal resource gathering is determined to be a landscape level value, then there may not be a site-specific result necessary, but some sort of landscape level strategy to ensure that opportunities for medicinal resource gathering continue over the long-term.

Herring/ Roe

Similar to jigging and shellfish gathering, the harvest of herring and roe is a marine activity. Forestry activities under a FSP are unlikely to affect herring/ roe opportunities, other than through the location of log holding areas or log dumping sites – the identification and approval of these areas is handled outside of the FSP process (foreshore lease approvals).

One aspect of roe on kelp collection would be the potential for heli-drop sites affecting the collection sites: if this information is available, there is the potential that it can be dealt with through the FSP.

Other information of value is the location of shellfish processing sites; again, this is unlikely to be affected by activities governed by the FSP.

SD3.7.2 Cedar

All of the North Coast First Nations have identified Cedar (Western Red Cedar and Cypress, or Yellow Cedar) as tree species that are of continuing cultural importance. The primary desire has been to ensure that cedar is maintained on First Nation traditional territories in amounts and of the proper attributes to allow ongoing cultural use.

As noted above, the areas that are to be protected on the North Coast will allow First Nations sustenance and traditional and cultural uses to occur on a substantial land base. This ensures that Cedar is represented across the landscape. It is important to keep in mind that Protected Areas provide for a cultural landbase that is much larger than the timber harvesting landbase, and the strategies and results in this FSP therefore will only address a small portion of that landbase. Nonetheless, result **NC-24** reflects stand-level actions to ensure that Cedar and Cypress is represented and available for traditional activities.

SD3.7.3 Culturally-Modified Trees (CMTs)

Culturally Modified Trees (CMTs) can include any tree that has been modified through human activity. However, for the purposes of the FSP, a CMT is considered to be a tree modified through a cultural activity of a First Nation. These trees are split into two classes: pre-contact (i.e. before 1846) and post-contact (after 1846). There is no discussion of pre-contact CMTs in the FSP as they are considered to be archaeological features and are protected and managed by the *Heritage Conservation Act*. Post-contact CMTs, however, have not formal protection or designation. Several First Nations have internal policies on post-contact CMTs, most including some level of protection and buffering. However, the FSP Holders do not currently have a consistent approach for dealing with post-contact CMTs, and therefore the FSP does not include a specific strategy or result for CMTs; however, strategies **NC-19**, **NC-21**, **NC-22** and **NC-23** allow for the identification, discussion, and management of cultural heritage resources, which includes both pre-and post-contact CMTs. **NC-22** also describes what to do if a cultural heritage resource (including post-contact CMTs) is discovered during field activities.

SD3.8 Recreation Resources

The FSP Holders will conserve identified recreation resource values throughout their operating areas, and will maintain the recreation resource by complying with the higher level plans established for the District's network of recreation sites and trails. The FSP Holders will limit the impact that timber harvesting operations may have on high value recreation areas by assessing the potential impacts and prescribe mitigating measures where necessary and practical. If necessary, measures to protect specific recreation features and resources will be identified in the Site Plan. FSP Holder operations proposed within or adjacent to established sites and trails will be consistent with the management objectives (Higher Level Plans) for these features. Generally, this means no harvesting activities will occur within 10 metres of the feature. If additional measures are required to conserve the value of the recreation feature, and where practical, partial cutting will be used adjacent to the 10-metre buffer. Where the Ministry of Forests and Range is considering new sites or trails for establishment, FSP Holders will not propose operations that will conflict with draft management objectives for those features.

There are recreation areas that are regularly used that do not have higher level plan objectives (e.g. Bishop Bay Hotsprings and Secret Cove [Welcome Harbour]). No strategies or results are required for these sites.

SD3.8.1 Recreation Sites and Trails with Higher Level Plan Objectives

As of February 2006, there is only one trail that falls within the FDUs in this FSP that has established higher level plan objectives. The Mount McLean Recreation Trail objective states that

the trail right-of-way shall be 10 metres on either side of the center line of the trail[27]. The FSP result **NC-26** is consistent with this objective.

SD3.9 Resource Features

SD3.9.1 General information

Section 5 of the *Government Actions Regulation* allows the identification of the following as resource features:

- surface or subsurface elements of a karst system;
- a range development;
- Crown land that is being used for research or experimental purposes;
- permanent sample sites used as snow courses by the Federal or Provincial government for the purpose of measuring the water content of the snow pack on a given area;
- a cultural heritage resource that is the focus of a traditional use by an aboriginal people and that is not regulated by the *Heritage Conservation Act*;
- an interpretative forest site, recreation site or recreation trail;
- a trail or other recreation facility referred to in section 56 [*interpretive forest sites, recreation sites and recreation trails*] of the Act that is authorized by the minister or under another enactment;
- a recreation feature that the minister considers to be of significant recreational value.

Cultural heritage features are discussed in **section SD3.7** of this supporting document.

Interpretative forest sites, recreation sites, and recreation trails, including a trail or other recreation facility referred to in section 56 of the FRPA, or a recreation feature that the minister considers to be of significant recreational value, are discussed in **section SD3.8** of this supporting document.

Strategies or results are not necessary or required to provide strategic management of the remaining resource features.

As of February 2006, for the area covered by this FSP, no resource features have been identified with respect to

- surface or subsurface elements of a karst system;
- a range development; or
- permanent sample sites used as snow courses.

Where the location of Crown land that is being used for research or experimental purposes is available through the Land and Resource Data Warehouse, that information is shown on the FSP maps. For example, permanent sample plot locations.

SD3.10 Visual Quality

The Ministry of Forests and Range has completed a landscape inventory for the North Coast Forest District. Visual quality objectives (VQOs) are objectives defining an acceptable level of alteration to a specific visual landscape unit based on the physical characteristics and public concerns.

The District Manager has "made known" established Scenic Areas throughout the North Coast Forest District. Prior to any development in a known scenic area, the planned development is reviewed to assess the potential impacts on the visual resource:

- Zone 1: Inside Passage
- Zone 2: Skeena River Corridor

[27] *Mt McLean Trail* establishment advertisement - North Coast Forest District file # 16660 20 0619

- Zone 3: Portland/ Work Channel
- Zone 4: Douglas/ Gribbel

One portion of the Zone 3 scenic area does not have a VQO or a VSC, but has been identified as an area of visual importance by the Nisga'a Lisims Government, as it is directly visible from the village of Gingolx. Strategy **NC-18** has been included in the FSP to address this area.

As of February 2006, the North Coast scenic areas do not have visual quality objectives, but have established visual sensitivity classes which will be used as a surrogate, as follows:

Visual Sensitivity Class	***Managed to a Visual Quality Objective of:***
1	Retention
2	Partial Retention
3	Modification
4	Modification
5	Maximum Modification

According to MoFR staff, VQOs are expected to be approved and put into place by mid-2006[28]. If this occurs, the FSP will be updated to use the approved VQOs.

Visual Impact Assessments (VIAs) will be completed where development is proposed within visual polygons in known scenic areas. VIAs will be used to illustrate that the VQO will be met. To maximize timber development in scenic areas, FSP Holders will use visual landscape design techniques when designing cut blocks in highly sensitive areas. Properly designed blocks will blend development into the natural landscape. Where visual landscapes are highly sensitive, a variety of silviculture systems will be prescribed to minimize the visual impact. This is reflected in strategy **NC-17**.

The following are definitions for the individual VQO classes from the FRPA and the guidelines from the Visual Impact Assessment Guidebook (2nd Edition, January 2001) for the allowable percent alteration in perspective view for each VQO. The goal is to meet the definition of the VQO, whereas the percent alteration guideline is only provided to help determine the relative scale of alteration on a visual landscape from clear cut or seed tree silviculture systems. Partial cutting systems have no alteration guideline as the impact will vary with the uniformity of harvesting and the percent of basal area removal rather than the size of the activity area. Refer to the Visual Impact Assessment Guidebook for specific details.

VQO	***VQO definition*** *(FPPR section 1.1)*	***% alteration guideline*** *(Visual Impact Assessment Guidebook)*
Preservation	Consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is (i) very small in scale, and (ii) not easily distinguishable from the pre-harvest landscape.	0
Retention	Consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is (i) difficult to see, (ii) small in scale, and (iii) natural in appearance.	0 - 1.5
Partial Retention	Consisting of an altered forest landscape in which the alteration, when assessed from a significant viewpoint, is (i) easy to see, (ii) small to medium in scale, and (iii) natural and not rectilinear or geometric in shape.	1.6 – 7.0

[28] L. Davies, RPF Personal Communication

VQO	***VQO definition*** *(FPPR section 1.1)*	***% alteration guideline*** *(Visual Impact Assessment Guidebook)*
Modification	Consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, (i) is very easy to see, and (ii) is (A) large in scale and natural in its appearance, or (B) small to medium in scale but with some angular characteristics.	7.1 – 18.0
Maximum Modification	Consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, (i) is very easy to see, and (ii) is (A) very large in scale, (B) rectilinear and geometric in shape, or (C) both.	18.1 - 30.0

SD3.11 Forage

SD3.11.1 General information

Forage in the context of this FSP is related to food required for livestock (i.e. for Range activities). There are no Range activities in the FSP area, and there are no objectives for Forage: and subsequently, there are no strategies or results required. Nonetheless, some of the strategies or results within the FSP may have an impact on forage for wild species.

Forage for wild species occurs naturally; however, forage for grizzly bear and for moose is managed within this FSP through reduced stocking requirements and minimum inter-tree distance when activities occur on certain plant associations. These strategies and results are captured in the FSP (**NC-04, NC-07**).

SD3.12 Cross reference of Strategies and Results to all of the FRPA Forest Values

The following table shows how the strategies and results relate to the eleven forest values as described under the *Forest and Range Practices Act*.

Y = Strategy or Result provided for this Value **A** = Strategy or Result relates to this value as well

FSP Strategy or Result Reference #	Soils	Timber	Wildlife	Water	Fish	Biodiversity	Cultural Heritage Resources	Recreation Resources	Resource Features	Visual Quality	Forage
NC-01	Y										
NC-02	Y										
NC-03	Y										
NC-04		Y									A
NC-05		Y									
NC-06		Y									
NC-07			Y								A
NC-08			Y								
NC-09			Y								
NC-10			Y								

FSP Strategy or Result Reference #	Soils	Timber	Wildlife	Water	Fish	Biodiversity	Cultural Heritage Resources	Recreation Resources	Resource Features	Visual Quality	Forage
NC-11			Y								
NC-12			Y								
NC-13			Y			Y					
NC-14			Y			Y					
NC-15			A	Y							
NC-16			Y			Y					
NC-17										Y	
NC-18										Y	
NC-19							Y				
NC-20							Y				
NC-21							Y				
NC-22							Y				
NC-23							Y				
NC-24						Y	Y				
NC-25			A	A	Y						
NC-26								Y			

SD4 ADDITIONAL INFORMATION

SD4.1 Additional FSP Information

SD4.1.1 Areas under Cutting Authority (TSL, CP, FSR, RP)

The FSP maps show blocks that are currently under Timber Sales Licence (TSL), Cutting Permit (CP), Forest Service Road (FSR), and Road Permit (RP) that are under the control of the FSP Holders.

In addition, cutblocks or roads that are currently under CP or RP and held by others are shown on the FSP maps.

SD4.1.2 Stocking Standards

The Stocking Standards in this FSP are based on established standards that have undergone extensive review, including the consideration of economically and ecologically viable species and the forest health risks associated with those species.

The licensees in the North Coast Forest District have stocking standards that were approved for each licensee's forest development plan. These stocking standards have been approved by the District Manager, and were reviewed to form the basis of the stocking standards to be used under this FSP.

The Stocking Standards in this FSP depart from these previously established stocking standards in two ways:

1. The late free growing date has been set at 20 years. This is in accordance with the FPPR section 44, which makes allowance for this time frame. Under the current silviculture treatment regime, there has often been a need to extend the late free-growing date for reforested areas. By extending the late free-growing date, there will be a reduction in unnecessary paperwork and an increase in operational flexibility for the licence. With the current level of information respecting the state of silviculture in the area, it is not expected that current forest management practices will change. Since timber supply reviews are based on current management practices, a timber supply impact from this change in free growing date is not expected.
2. Application of reduced stocking and lower inter-tree spacing for wildlife forage purposes, to be applied on moose ungulate winter range, which will provide increased forage potential while still maintaining a commercially viable forest stand. While these stocking standards currently only apply for moose UWR, it should be noted that the forage needs of moose are similar to those of grizzly bear (*personal communication, B. Pollard, RPBio – Jan 14 2005*), allowing the same stocking standards to potentially apply to both species at some point in the future.

Forest ecosystems are often not uniform but can vary over small distances, and this is the basis for the inclusion of the ability to have complexes of stocking standards. Currently, the electronic record-keeping system does not allow the reporting of these complexes, so the dominant site series stocking standard will be reported; however, information on the complexes will be available in FSP Holder site plans.

SD4.1.3 Invasive Plants

The FSP must address invasive plants (FPPR s. 17), and the basis for the following measures for control of the invasive plant species identified in the *Invasive Plants Regulation* is a report on the subject prepared by Acer Resource Consulting Ltd. (*B. Pollard, RPBio, January 2005*). Several options are presented in the report, but only those considered practical and effective are used

Use certified seed only in erosion control and grass-seeding activities.

Uncertified seed can contain weed plant seeds. Avoid planting invasive species by using only seed which has been certified as weed-free. Perennial native grasses and legumes should be used for re-vegetation purposes. As a minimum, the seed grade used should be Canada Common #1 Forage Mixture.

For BCTS: In the course of their duties, BCTS field team personnel will make note of occurrences of invasive plants, and will report these occurrences to the North Coast Planning Forester within ten (10) working days of noting the occurrence. The North Coast Planning Forester will then collate and pass this information to a representative of the North West Invasive Plant Council within ten (10) working days of receiving a report from a BCTS field team member.

For FSP Holders other than BCTS: In the course of their duties, licensee field staff will make note of occurrences of invasive plants, and will report these occurrences to a representative of the North West Invasive Plant Council within thirty (30) working days of discovering the occurrence.

These measures will allow the timely identification and reporting of the occurrence of invasive plants on lands directly affected by FSP Holder activities. The North West Invasive Plant Council is the body that coordinates actions in response to reported occurrences.

SD4.1.4 Natural Range Barriers

Where applicable (FRPA s. 48), the FSP must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers (FPPR s. 18).

For the purposes of this FSP, the definition of Natural Range Barrier is in relation to the movement of livestock. There are no agricultural range activities of note within the FSP area. None of the activities under this FSP are expected to remove or render ineffective a natural range barrier, and therefore, there are no measures specified.

SD4.1.5 Cumulative Effect of Multiple FSPs

Metlakatla Development Corporation

Metlakatla Development Corporation is preparing a Forest Stewardship Plan, which currently has been submitted to the BC Ministry of Forests and Range for approval. Metlakatla Development Corporation is held by the Metlakatla First Nation, which was consulted before the public review of this FSP. There is no overlap between this Forest Stewardship Plan and the Metlakatla FSP.

Forest Development Plans

There are currently five approved Forest Development Plans (FDPs) on areas within the FDUs: BC Timber Sales, Lax Kw'alaams Development Corporation (Coast Tsimshian Resources Ltd.); International Forest Products; Triumph Timber; and Boyle and Dean. In addition, there is one FDP that is in application that has not yet been approved. Where the information has been readily available, approved blocks from these tenure holders are shown on the FSP maps.

SD4.1.6 Advertisement, Referrals, Reviews, and Comments

This Forest Stewardship Plan is made available to interested parties and to the general public for review and comment. The general public is made aware that the FSP is available for review through advertisements that are placed in local newspapers. The FSP is also provided to the following government agencies: Ministry of Forests and Range (MoFR), Nass Wildlife Committee, Department of Fisheries and Oceans, and the Lands and Resources Directorate (Nisga'a Lisims Government). Additional stakeholders that would likely have an interest in the FSP are also contacted to ensure that they are aware that the FSP is available for review (e.g. trapline holders, guide-outfitters).

Prior to and during the preparation of this FSP, representatives of the FSP Holders have been

engaged in information sharing with First Nations groups potentially affected by the plan. Additionally, copies of the public review version of the FSP will be provided to the First Nations.

The MoFR reviews the plan as well as any documented comments received from other government agencies, the general public and First Nations groups. Following the public review period, any written comments that are received by the FSP Holders and how they have been addressed will be forwarded to the District Manager of the North Coast Forest District for consideration when making a decision regarding approval of the FSP.

*Specific details are provided in **Section SD5** of this document.*

SD4.1.6.1 Advertisements

Copies of local newspaper insertions advertising the 60-day review period are included in **Section SD5** when the FSP is submitted to the Delegated Decision Maker for approval.

SD4.1.6.2 Review and Comment / Documentation and Referral

Any comments received during the 60 day review period are reviewed by the FSP Holders. The comments and FSP Holder decisions relating to those comments are included in **Section SD5** when the FSP is submitted to the Delegated Decision Maker for approval.

SD4.1.6.3 Public

Any written comments that are received from the general public are provided in **Section SD5** when the FSP is submitted to the Delegated Decision Maker for approval.

SD4.1.6.4 First Nations

Representatives of the FSP Holders have met and corresponded with First Nation groups regarding this plan. Summaries of meetings, comments, and responses are provided in **Section SD5** when the FSP is submitted to the Delegated Decision Maker for approval.

SD4.1.6.5 Agencies

Information related to meetings, correspondence, and discussions between the various governmental agencies and the FSP Holders are provided in **Section SD5** when the FSP is submitted to the Delegated Decision Maker for approval.

SD3.1.6.6 Summary of Revisions

A summary of the revisions that have been made to the FSP is included in **Section SD5** when the FSP is submitted to the Delegated Decision Maker for approval.

SD4.1.7 FSP Maps

The FSP map format has been reviewed and discussed with staff of the Ministry of Forests and Range.

The boundaries of the Forest Development Units (FDUs) were chosen primarily to match internal administrative boundaries; other factors that influenced the shape and number of FDUs include watershed boundaries, trapline boundaries, and First Nation asserted traditional territories.

SD4.2 Items not addressed in FRPA

SD4.2.1 Trapline holders

While the FRPA legislation is silent on the need to involve trapline holders, the FSP Holders believe that this stakeholder group deserves attention. As a result, the FSP submission cover letter will be provided to them. While the FSP will not provide site-specific information, if a relationship is established early in the planning process, the trapline holder can provide input and information that will help limit conflicts at the stand level.

SD4.2.2 Non-timber Forest Products

While the FRPA legislation is silent on the need to address non-timber or botanical forest products, it is expected that this may be identified as a resource feature in the future. Therefore, it is worthwhile mentioning that there is the potential for the production of botanical forest products in the FDUs. For the most part, there is little commercial activity in the production of botanical or non-timber forest products, although there is an expanding interest. Most activity with respect to botanicals is currently restricted to sustenance harvest, and the strategy **NC-19** provides opportunities for culturally-based non-timber forest products to be identified and managed for.

SD4.3 Ecosystem-Based Management Considerations

As of February 2006, the government of BC has made a commitment that the North Coast TSA will become subject to ecosystem-based management (EBM), and has begun transitioning towards EBM implementation. However, no legal objectives have been established for, or related to EBM, so the FSP cannot include EBM strategies or results. However, this section of the support document provides a description of what the potential application of EBM may look like once legal objectives are established.

There are two aspects of EBM implementation that are discussed: the "transitional elements" described in the North Coast LRMP, and the Schedule B to a government to government protocol between North Coast First Nations and the BC Government.

SD4.3.1 NC LRMP EBM Transitional Elements

This section includes a description of the NCLRMP EBM transitional element, followed by an evaluation of the element, and a possible strategy or result that, in the opinion of the FSP Holders, could address the transitional element. Since no legal objectives related to EBM have been set, it is important to note that the wording of possible strategies or results in this section cannot be considered as binding in any way. It is only when objectives are established **and** the FSP is amended to include strategies and results to be consistent with those as-yet unestablished objectives that the strategies or results amended into the FSP will be considered binding.

SD4.3.1.1 Representation

North Coast LRMP wording: "Classify the site series or site series surrogates into five groupings (rare, uncommon, modal, common, and very common) and establish a minimum representation target at the landscape level"

Consistency with this North Coast LRMP Transitional Element would require new strategies. Examples:

> "***Possible Strategy:*** *Group the site series that occur on the FSP area into the following categories: rare, uncommon, modal, common, very common. These groupings will be based on the occurrence (by area) of the site series within the North Coast Forest District.*

An analysis of these site series groupings will be carried out to determine their distribution within the contributing and non-contributing forest over the entire North Coast Forest District, and over the Landscape Units that are covered by this FSP. The distribution amounts will also be calculated for the portion of and FDU that is within the Landscape Unit; alternatively, the distribution will be pro-rated to the FDU portion.

*"**Possible Strategy:** Field development personnel will identify the rare, uncommon, modal, common, and very common site series within planned harvest areas (including roads) that occur within the old seral stage (age 250+):*

Rare or Uncommon: Retain at least [rare target %] *by Landscape Unit until the combination of retained area within the contributing landbase and the area calculated for the non-contributing landbase equals at least* [rare target %] *representation for the FDU portion is achieved.*

Modal: Retain at least [modal target %] *by Landscape Unit until the combination of retained area within the contributing landbase and the area calculated for the non-contributing landbase equals at least* [modal target %] *representation for the FDU portion is achieved.*

Common or Very Common: Retain at least [common target %] *by Landscape Unit until the combination of retained area within the contributing landbase and the area calculated for the non-contributing landbase equals at least* [common target %] *representation for the FDU portion is achieved."*

SD4.3.1.2 Red- and Blue-listed Plant Communities

North Coast LRMP wording: "Reserve 100% of CDC red listed plant communities and other non-listed, naturally rare ecosystems. Red-listed and other naturally rare ecosystems that have been harvested should be reserved from further harvest or development." **and** "Reserve 70% of known occurring blue-listed ecosystems at the landscape level to a maximum of 102 ha reserved across the plan area."

There is currently no strategy or result in the FSP that is consistent with these North Coast LRMP Transitional Elements. However, a FSP Strategy could be added to ensure consistency with the elements. Example:

*"**Possible Strategy:** Field development personnel will review planned harvest areas (including roads) for the occurrence of red- or blue-listed plant communities, and will map and report any occurrences to the appropriate FSP Holder's Planning department.*

Reserve at least [red target %] *of red-listed plant communities, if less than* [red upper limit] *hectares have been identified as reserved within the North Coast Forest District.*

Reserve at least [blue target %] *of blue-listed plant communities, if less than* [blue upper limit] *hectares have been identified as reserved within the North Coast Forest District."*

SD4.3.1.3 Stand Level Retention

North Coast LRMP wording: "15% minimum retention within cutblocks."

The implication of this North Coast LRMP Transitional Element is that the current default retention provision in the FRPA is not adequate. Inclusion of a result that provides for a retention amount would be a simple addition to the FSP. Example:

*"**Possible Result:** Retention of trees will be at a minimum of* [target %] *of the gross block area."*

SD4.3.1.4 Mid-seral cap at the landscape and watershed scale

North Coast LRMP wording: "Maintain <50% of each ecosystem type in mid seral. In developed landscapes and watersheds with >50% mid seral in the timber harvesting land base, harvest or reserve managed stands to prevent excessive mid seral representation."

There is currently no strategy or result in the FSP that is consistent with this North Coast LRMP Transitional Element. However, a FSP Strategy could be added to ensure consistency with the element. Example:

> "***Possible Strategy:*** *Determine the amount of mid seral forest (by BEC zone and variant) that exists within the portion of a Landscape unit (LU) that falls within the FDU.*
>
> *If the amount of mid seral forest is less than* [mid target %] *of the forested area of the FDU, no further action is required. If the amount is above* [mid target %], *review the representation of mid seral forests (by BEC zone and variant) within the LU but outside of the FDU: if there is adequate mid seral forest to ensure that total mid seral for the LU is below* [mid target %], *no further action is required. If there is more than* [mid target %] *mid-seral, harvesting activities may occur upon acceptance of a seral stage balancing strategy by the North Coast District Manager.*
>
> *For BEC variants that amount to less than 100 ha in a LU, the targets will not apply.*
>
> *For BEC variants that are represented adequately within the LU, but outside of the FDU (through no-log areas or OGMA designation), the targets will not apply within the FDU."*

SD4.3.1.5 Estuaries (watershed scale)

North Coast LRMP wording: "Maintain >90% of the natural riparian forest next to estuaries."

There is currently no strategy or result in the FSP that is consistent with this North Coast LRMP Transitional Element. However, a FSP Strategy could be added to ensure consistency with the element. Example:

> "***Possible Strategy:*** *At least* [target %] *of mature forest within* [buffer width] *of the edge of an estuary* will be retained.*
>
> *Retention may be measured by basal area, stem count, or area retention, as long as the method is identified*; if no method is identified, basal area will be used for measurement purposes.*
>
> ** as identified/described/delineated/mapped in a Site Plan, Road Plan or Profile, Foreshore Lease application, or similar document"*

SD4.3.1.6 Swamps and Gullies

North Coast LRMP wording: "Maintain >50% of the natural riparian forest next to fans, forested swamps and small steep streams/gullies with unique microclimate."

There is currently no strategy or result in the FSP that is consistent with this North Coast LRMP Transitional Element. However, a FSP Strategy could be added to ensure consistency with the element. Example:

> "***Possible Strategy:*** *Maintain* [target %] *of mature forest within* [buffer width] *of the edge of fans* [definition required], *forested swamps* [definition required], *and the embankments above small steep streams or gullies with unique microclimates* [definition required].

Retention may be measured by basal area, stem count, or area retention, as long as the method is identified; if no method is identified, basal area will be used for measurement purposes.*

** as identified/described/delineated/mapped in a Site Plan, Road Plan or Profile, or similar document"*

SD4.3.1.7 High Value Fish Habitat (HVFH)

North Coast LRMP wording: "Reserve all wetlands, active floodplains, active fluvial units and high value fish habitat including buffer."

Consistency with this North Coast LRMP Transitional Element can be met with an amendment to FSP result **NC-25** that includes RRZ widths and an understanding/ definition of High Value Fish Habitat. A primary consideration would include changing the default riparian reserve zones to a locally-determined width (e.g. some proportion or multiple of the average tree height).

SD4.3.2 Government to Government "Schedule B"

The "Schedule B" to a government to government protocol between North Coast First Nations and the BC Government has not been finalized and as of February 2006, was still in discussion. Therefore, a review and evaluation of a draft of this document would be counter-productive, as there is no guarantee that the reviewed document will be worded similarly to the final product.

First Nations have expressed frustration with this approach of not including aspects of Schedule B in the FSP strategies and results. There are documents signed between the BC Government and First Nations that reference Schedule B, and several First Nations have indicated that they believe there is enough information known about the Schedule B to enable strategies or results to be crafted. The FSP Holders recognize this frustration and acknowledge this concern, but are also concerned that since a final form of the Schedule B is not yet in place, the strategies or results may compromise the discussions that are ongoing about the Schedule B wording.

Once a final form of the "Schedule B" is agreed upon, the document can be evaluated for how it could be incorporated into an FSP.

If legal objectives are established based on the finalized "Schedule B", the FSP will be amended as necessary to include strategies and results that are consistent with those legal objectives.

SD5 Public, Agency, and First Nation Review and Comment Summary

The Forest Stewardship Plan is made available to interested parties and to the general public for review and comment. The general public will be made aware that the FSP is available for review through advertisements that are placed in local newspapers. The FSP is also provided to government agencies, with extra copies of FSP information provided to the Ministry of Forests and Range (MoFR) to pass on to those First Nations groups affected by the plan. The FSP Holders also meet with First Nations' groups to discuss the plan.

Written comments that are received by the FSP Holders during the public review, and how they have been addressed, will be provided as part of this document when it is submitted to the Ministry of Forests and Range for approval. This will include summaries of First Nations' meetings and their outcomes.

SD5.1 Advertisements

Newspaper insertions advertising the 60-day review period will appear in local newspapers: the *Prince Rupert Daily News*; the *Terrace Standard*; the *Northern Sentinel*; and the *Coast Mountain News*. Copies of these advertisements will be provided behind Tab 1 of this document.

SD5.2 Review and Comment / Documentation and Referral

Preparation of the North Coast FSP has been led by BC Timber Sales, Skeena Business Area. However, five other licensees have also participated in the information gathering process with First Nations:

- Boyle and Dean Logging
- Coast Tsimshian Resources
- International Forest Products – North Coast Division
- Thomson Industries
- Triumph Timber

These licensees have signed a confidentiality agreement amongst themselves with respect to the receipt and use of confidential cultural information. Each of the licensees provided authority to a local consultant to request and gather information on their behalf if a licensee representative was unable to attend an information sharing meeting. Many of the strategies and results in this FSP are a result of the information sharing that went on prior to the public review of the FSP.

All of the licensees, with the exception of International Forest Products, are signatory to this FSP.

SD5.2.1 Public Review Letters

Copies of letters or emails sent to non-First Nation or non-Agency stakeholders, and any subsequent correspondence will be provided behind Tab 2 of this document.

SD5.2.1.1 General Public

Copies of letters or emails received from the general public or from public stakeholder groups, and any subsequent correspondence, will be provided.

SD5.2.1.2 Recreation groups

SD5.2.1.2.1 Commercial Recreation

Discussions with the Lands and Resources Directorate, Nisga'a Lisims Government

(NLG) have occurred. The management plan[29] for the NLG Commercial Recreation Tenures was provided and has been reviewed. The primary concerns have been wilderness experience within the commercial recreation tenure areas, and potential visual impacts from activities outside the tenure areas. The tenure areas are not yet developed, and it is recognised that issues may arise over time as commercial recreation tenure development occurs. The strategy **NC-20** will ensure that discussions regarding these tenure areas can occur on a regular basis.

Other commercial recreation groups in the area are expected to provide comment through the public review of the plan.

SD5.2.1.2.2 Non-commercial Recreation

Individual recreationists are expected to provide comment through the public review of the plan.

SD5.2.1.3 Trapline Holders, Guide-Outfitters

Letters will be sent to trapline holders and guide-outfitters whose areas overlap the FDUs within the FSP area, informing them that the FSP is available for review and comment.

SD5.2.1.4 Other Forest Tenure Holders

Letters will be sent to forest licensees whose normal operating areas overlap with the FDUs.

SD5.2.2 First Nations

Correspondence, meeting notes, and file notes of discussions between the FSP Holders and First Nation groups are provided behind Tab 3 of this document.

FDUs in this FSP overlap with the traditional territories of six First Nations groups:

- Gitga'at (Hartley Bay)
- Gitxaala (Kitkatla)
- Haisla (Kitamaat)
- Lax Kw'alaams (Port Simpson)
- Kitasoo/Xaixais (Klemtu)
- Metlakatla

Several FDUs also overlap with traditional resource use areas of two other First Nations:

- Kitselas
- Kitsumkalum

Several of the North Coast First Nations are members of the "Turning Point" initiative, which provides a unified voice in discussions with Government.

Offers were made to meet with each of these First Nations to discuss the preparation of the FSP, and to participate in information sharing. The offer was provided by letter, with follow-up phone calls. All of the First Nations groups were willing to meet, though some expressed concern about the nature of the information sharing, as they were concerned about having multiple licensees at these meetings. Therefore, in some instances, no licensee representatives were present at information sharing sessions other than the consultant authorized to gather information on behalf of all of the licensees.

The North Coast Forest District coordinated an information session to explain FRPA and provide the context of FSPs. All of the First Nation groups were invited, and the session was held on November 14, 2005 – only the Haisla and Gitga'at First Nations attended the session.

[29] Nisga'a Commercial Recreation Project – Management Plan

SD5.2.2.1 Gitga'at First Nation

A letter was sent (dated October 31, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on December 6, 2005 in Prince Rupert. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Information sharing was strategic in nature, and representatives of the FSP Holders asked that Gitga'at share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Gitga'at representatives indicated that they were not willing to share detailed cultural heritage resource information as they did not have the resources to do so.

An item of importance for the Gitga'at was the ability to review information not only at a strategic landscape level, but also at the stand level. As a result Gitga'at representatives provided a "consultation protocol" that had been prepared by the Turning Point initiative. This protocol outlines a process for First Nations review of site level information. Strategies **NC-19** and **NC-21** are consistent with the approach described in the Turning Point protocol.

EBM was also noted as an issue of importance to the Gitga'at. There was discussion regarding how EBM could fit into an FSP – see **section SD4.3** for more information on this topic.

A preliminary draft of the FSP was provided in advance of the public review period. Feedback received was that Gitga'at would like to see EBM incorporated into the FSP, with particular reference to the Schedule B. The process of gathering cultural heritage resource information was also questioned, as was the lack of an information sharing/ confidentiality protocol. Special reference was made to cedar (via the stewardship objectives from Schedule B) and CMTs. Gitga'at also re-iterated that they were not in favour of a multi-licensee FSP. As a result of these comments (and of the comments from the Kitasoo), additional information on CMTs and traditional uses was included in this supporting document (**section SD3.7**).

SD5.2.2.2 Gitxaala (Kitkatla) First Nation

A letter was sent (dated October 31, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on December 12, 2005 in Kitkatla. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Information sharing was strategic in nature, and representatives of the FSP Holders asked that Gitxaala share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Gitxaala representatives indicated that they were not willing to share detailed cultural heritage resource information as they did not have the resources to do so. However, Gitxaala and BCTS representatives did agree to work towards an information sharing protocol, and as of February 2006, these efforts are continuing.

Cedar was identified as a resource of importance by the Gitxaala, and strategy **NC-24** is included in the FSP to address this cultural need for red and yellow cedar. Issues of concern included the impression of recent "high-grading" of forests, and a lack of knowledge regarding the sustainable harvest level on Gitxaala lands. Gitxaala representatives also discussed the "consultation protocol" that had been prepared by the Turning Point initiative. This protocol outlines a process for First Nations review of site level information. Strategies **NC-19** and **NC-21** are consistent with the approach described in the Turning Point protocol.

EBM was also noted as an issue of importance to the Gitxaala. There was discussion regarding how EBM could fit into an FSP – see **section SD4.3** for more information on this topic.

A preliminary draft of the FSP was provided in advance of the public review period. No feedback was received; however, Gitxaala may not have had time, or may have chosen not to comment as there will be a formal referral of the FSP to them concurrent with the public review period.

SD5.2.2.3 Haisla First Nation

A letter was sent (dated October 31, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on January 6, 2006 in Terrace. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Representatives of the FSP Holders asked that Haisla share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Information sharing was strategic in nature, and Haisla representatives indicated that they had difficulty reviewing the large FDU areas and would prefer to be able to focus on smaller areas. The strategy **NC-19** allows this to happen. The Haisla Land Use Plan was shared, as was the Haisla position on core treaty lands. Haisla representatives also indicated that they would share their detailed data base on cultural heritage sites, on two conditions: that a confidentiality agreement be signed, and that the heritage site information not be shown on the FSP maps. The FSP Holders are in agreement with these conditions. BCTS is working on the confidentiality agreement with the Haisla as of February 2006.

EBM was also noted as an issue of importance to the Haisla. There was discussion regarding how EBM could fit into an FSP – **see section SD4.3** for more information on this topic.

A preliminary draft of the FSP was provided in advance of the public review period. No feedback was received; however, Haisla may not have had time to respond, or may have chosen not to comment as there will be a formal referral of the FSP to them concurrent with the public review period.

SD5.2.2.4 Lax Kw'alaams First Nation

Letters were sent (dated October 31, 2005) to the Band Council and to the Allied Tsimshian Tribes requesting a meeting to share information for use in the preparation of the North Coast FSP. Follow-up telephone calls were made to confirm receipt of the letter and to arrange a meeting date.

A meeting occurred on January 16, 2006 at Lax Kw'alaams with representatives from both the Band Council and the Allied Tsimshian Tribes. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Representatives of the FSP Holders asked that Lax Kw'alaams share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Lax Kw'alaams representatives expressed concerns over a lack of resources to fully review and respond to cultural heritage information requests. Information sharing with Lax Kw'alaams representatives focused on old growth management and concerns over resourcing.

A preliminary draft of the FSP was provided in advance of the public review period. No feedback was received from Lax Kw'alaams; however, Lax Kw'alaams may not have had time to respond, or may have chosen not to comment as there will be a formal referral of the FSP to them concurrent with the public review period.

SD5.2.2.5 Kitasoo/Xai'xais First Nation

A letter was sent (dated November 16, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on January 26, 2006 in Klemtu. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Representatives of the FSP Holders asked that Kitasoo/Xai'xais share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Kitasoo/Xai'xais representatives indicated that Aristazabal Island is an area of high resource use by their people, both for marine food sources and for game. The boundary of the draft FDU on Aristazabal Island reflects this input. In addition, the strategies and

results in the FSP, particularly **NC-19** and **NC-21**, will allow for more detailed discussions to occur.

A concern was raised about the sustainable harvest level for Kitasoo/Xai'xais territory. The Kitasoo Land Use Plan was provided.

EBM was also noted as an issue of importance to the Kitasoo/Xai'xais. There was discussion regarding how EBM could fit into an FSP – see **section SD4.3** for more information on this topic.

A preliminary draft of the FSP was provided in advance of the public review period. Feedback received was that Kitasoo would like to see EBM incorporated into the FSP, with particular reference to the Schedule B. Kitasoo would also like the process of site plan and road permit referrals to continue under the FSP process – this is the case currently under the Forest Development Plan. CMTs were also identified as an item that Kitasoo felt should be specifically addressed in the FSP. As a result of these comments (and of the comments from the Gitga'at), additional information on CMTs and traditional uses was included in this supporting document (**section SD3.7**).

SD5.2.2.6 Kitselas First Nation

A letter was sent (dated November 16, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on February 9, 2006 in Terrace. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Representatives of the FSP Holders asked that Kitselas share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Kitselas representatives indicated that the areas of concern to them on the North Coast are traditional resource use areas, not traditional territory, and offered to meet separately to review these traditional resource uses. As of February 2006, this meeting is still to be scheduled.

A preliminary draft of the FSP was provided in advance of the public review period. No feedback was received; however, Kitselas may not have had time to respond, or may have chosen not to comment as there will be a formal referral of the FSP to them concurrent with the public review period.

SD5.2.2.7 Kitsumkalum First Nation

A letter was sent (dated November 16, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on December 1, 2005 in Terrace. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Representatives of the FSP Holders asked that Kitsumkalum share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Kitsumkalum representatives indicated that the areas of concern to them on the North Coast are traditional resource use areas, not traditional territory, and offered to meet separately to review these traditional resource uses.

Three subsequent meetings have occurred (December 7, 2005, January 4 and February 22, 2006): the traditional resource uses of the Kitsumkalum on the North Coast have been identified, and the potential for forestry operations to affect those resource uses have been discussed. Kitsumkalum representatives have reviewed the strategies and results in the FSP for cultural heritage resources (**NC-19**, **NC-20**, **NC-21**, **NC-22**, **NC-23**, and **NC-24**) and do not have any additional input or concern with the strategies as of February 2006.

A preliminary draft of the FSP was provided in advance of the public review period. No feedback was received; however, Kitsumkalum may not have had time to respond, or may have chosen not to comment as there will be a formal referral of the FSP to them concurrent with the public review period.

SD5.2.2.8 Metlakatla First Nation

A letter was sent (dated October 31, 2005) to the Band Council requesting a meeting to share information for use in the preparation of the North Coast FSP.

A meeting occurred on January 9, 2006 in Prince Rupert. Information on the FSP process was provided, as was a map of proposed FDUs, and example strategies and results for cultural heritage resources. Representatives of the FSP Holders asked that Metlakatla share cultural heritage resource information that might be affected by forestry operations, and their thoughts on how to address any concerns. Metlakatla representatives indicated that they were not willing to share detailed cultural heritage resource information as they did not have the resources to do so. Metlakatla representatives also discussed the "consultation protocol" that had been prepared by the Turning Point initiative. This protocol outlines a process for First Nations review of site level information. Strategies **NC-19** and **NC-21** are consistent with the approach described in the Turning Point protocol.

EBM was also noted as an issue of importance to the Metlakatla. There was discussion regarding how EBM could fit into an FSP – **see section SD4.3** for more information on this topic.

A preliminary draft of the FSP was provided in advance of the public review period. No feedback was received; however, Metlakatla may not have had time to respond, or may have chosen not to comment as there will be a formal referral of the FSP to them concurrent with the public review period.

SD5.2.3 Agencies

Information related to meetings, correspondence, and discussions between the various governmental agencies and the FSP Holders is provided behind Tab 4 of this document.

SD5.2.3.1 Nisga'a Lisims Government

Discussions with the Lands and Resources Directorate, Nisga'a Lisims Government (NLG) have occurred in advance of the public review version of the FSP. Four meetings have occurred, on November 28, 2005, January 4, 20, and February 22, 2006.

As noted above, the management plan for the NLG Commercial Recreation Tenures was provided and has been reviewed. Management Plans for the fee-simple lands held by the NLG were also provided. The main issue raised for these lands is ensuring that future opportunities are not compromised by forest activities. The fee-simple lands are not yet developed, and it is recognised that issues may arise over time as commercial recreation tenure development occurs. The strategy **NC-20** will ensure that discussions regarding these tenure areas can occur on a regular basis.

Discussion about visual management south of the village of Gingolx gave rise to result **NC-18**, and a desire by the NLG to have continued access to their Welda Creek area resulted in result **NC-05**.

The public review version of the FSP will be made available to the Nisga'a Lisims Government.

SD5.2.3.2 Federal Department of Fisheries and Oceans

The FSP will be made available to the Department of Fisheries and Oceans (DFO), along with an offer to meet to discuss or review the FSP.

SD5.2.3.3 BC Ministry of Environment

The Skeena Region of the MOE has declined an offer to review and comment on this FSP. This Ministry also coordinates the Nass Wildlife Committee, which will be provided with a copy of the FSP.

SD5.2.3.4 Nass Wildlife Committee

The FSP will be made available to the Nass Wildlife Committee (NWC)

SD5.2.3.5 BC Ministry of Agriculture and Lands – Integrated Land Management Bureau

The Skeena office of the Integrated Land Management Bureau has declined an offer to review and comment on this FSP.

SD5.2.3.6 BC Ministry of Forests and Range

An information sharing meeting was held with North Coast Forest District staff on February 15, 2005, with an update meeting on November 14, 2005. Since then, BCTS representatives, on behalf of the FSP Holders, and MoFR staff have maintained informal contact to ensure that information and understandings are current.

Copies of the FSP are provided to the Kalum Forest District to allow the District to undertake the Crown's required First Nations' consultation process.

SD5.3 Summary of Revisions

A summary of any revisions that are made to the FSP is provided behind Tab 5 of this document.

SD6 Sources of Information

Information is current to February 2006

Information Source	Publisher	Date of publication
CULTURAL HERITAGE RESOURCES, ARCHAEOLOGY		
An Archaeological Overview of the North Coast TSA – prepared for the North Coast Forest District (MoFR)	Golder and Associates	April 2000
Guidelines for Managing Cedar for Cultural Purposes http://www.for.gov.bc.ca/ftp/DSI/external/!publish/Stewardship/SIFD_Objectives_Matrix/7_Cultural_Heritage/Guidelines/Cedar_Guidelines_MOF_Consultation_Final_Jan_2005.pdf	MoFR – Coastal Forest Region	Jan 2005
Archaeology Branch – Remote Access to Archaeological Data; Archaeological Impact Assessment Guidelines http://srmwww.gov.bc.ca/arch/	ILMB	Website visited Jan 19, 2006
Archaeology Branch – *Archaeological Impact Assessment Guidelines* http://srmwww.gov.bc.ca/arch/pubs/impweb/impact.htm	ILMB	Website visited Jan 19, 2006
ECOSYSTEM CLASSIFICATION		
A Field Guide to Site Identification and Interpretation for the Prince Rupert Forest Region (Land Management Handbook 26) http://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh26.htm	MoFR	1993
FIRST NATIONS		
Forestry/Range Interim Measures Agreements: Kitasoo/Xai'xais, Kitselas, Kitsumkalum, Lax Kw'alaams, Metlakatla, Gitga'at, Haisla http://www.for.gov.bc.ca/haa/FN_Agreements.htm	MoFR – Aboriginal Affairs Branch	Jan 2004
Draft – Sustained Land Use Planning Agreement	BC Gov't and First Nations	Received January 2006
Haisla Land Use Plan	Kitamaat Village Council	Received January 2006
Kitasoo/Xai'xais Land Use Plan http://www.kitasoo.org/forestry/landplan/index-LandUsePlan.html	Kitasoo/ Xai'xais	June 26, 2000
Unpublished comments on Draft Schedule B to the Ecosystem-Based Management Handbook	MoFR	June 20, 2005
FISHERIES AND WATERSHEDS		
Pelagics & Minor Finfish - Pacific Region: Eulachon – Biology http://www.pac.dfo-mpo.gc.ca/ops/fm/herring/eulachon/default_e.htm	Fisheries and Oceans Canada	Website visited Feb 22, 2005
Freshwater Fishing Regulations Synopsis 2004-2005 (Region 6) http://wlapwww.gov.bc.ca/fw/fish/pdf/region_6.pdf	MOE	Website version current to Jan 2005
Community Watershed Query database (Website last updated March 12 2001) http://srmwww.gov.bc.ca/wat/cws/query/cws.htm	MSRM/ ILMB	Website versions current to Jan 2005
Water Quality Objectives http://wlapwww.gov.bc.ca/wat/wq/wq_objectives.html	MOE	Website versions current to Jan 14, 2005
Standards and Best Practices for Instream Works http://wlapwww.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf	MOE	March 2004

Information Source	Publisher	Date of publication
A User's Guide to Working in and Around Water; Water Management Branch http://wbc.bc.ca/03water/licencing/docs/working_around_water.pdf	MOE	May 18, 2005
Skeena Region Reduced Risk In-stream Work Windows and Measures http://wlapwww.gov.bc.ca/ske/wateract/work_windows_measures_030205.pdf	MWLAP (now MOE), Skeena Region	May, 2005
LAND USE PLANS, PROTECTED AREAS, PARKS		
North Coast Land and Resource Management Plan, BC Ministry of Sustainable Resource Management http://srmwww.gov.bc.ca/ske/lrmp/ncoast/final_landuse_recommend.htm	Government of BC	Feb 2005
Central Coast Land and Resource Management Plan, BC Ministry of Sustainable Resource Management http://srmwww.gov.bc.ca/cr/resource_mgmt/lrmp/cencoast/table_rec.htm	Government of BC	May 2004
Kalum Land and Resource Management Plan, BC Ministry of Sustainable Resource Management http://srmwww.gov.bc.ca/ske/lrmp/kalum/index.htm	Government of BC	May 2002
A Protected Areas Strategy for British Columbia: The Prince Rupert Region PAS Report http://wlapwww.gov.bc.ca/ske/pas/	Ministry of Environment (MOE)	1996, 1998
Management Direction Statements for North Coast Provincial Parks Kitson Island Marine Park; Klewnuggit Inlet Marine Park; Lowe Inlet Marine Park; Union Passage Marine Park; Diana Lake; Prudhomme Lake; Khutzeymateen http://www.env.gov.bc.ca/bcparks/explore/explore.html	Ministry of Environment (MOE)	Website as of February 2006
LEGISLATION		
The *Forest and Range Practices Act* and associated regulations The *Forest Practices Code of British Columbia Act* and associated regulations and guidebooks The *Wildfire Act* The *Heritage Conservation Act* The *Forest Act* The *Foresters Act* The *Fisheries Act of Canada* http://www.for.gov.bc.ca/tasb/legsregs/comptoc.htm	Government of BC	Website version current to October 7, 2005
The *Species At Risk Act* http://laws.justice.gc.ca/en/S-15.3/index.html	Government of Canada	Website version current to October 7, 2005
The Constitution Act http://laws.justice.gc.ca/en/const/annex_e.html	Government of Canada	Website version current to February 22, 2006
FRPA Implementation Team website, including FSP information Resources http://www.for.gov.bc.ca/rco/pfit/index.htm	Government of BC	Website version current to October 7, 2005
FRPA Training Companion Guide	Government of BC	February 2004
What's New in FRPA (2005)	Government of BC	February 2005

Information Source	Publisher	Date of publication
LICENSEE INFORMATION		
Forest Development Plans – BC Timber Sales, Boyle & Dean, Thomson Industries, International Forest Products (North Coast)	BCTS Interpac Interfor	Various
MISC		
BC Ministry of Sustainable Resource Management (now Agriculture and Lands) Internet mapping site *http://maps.gov.bc.ca/*	MSRM	Website versions current to Jan 14, 2005
Center for Non-Timber Resources, Royal Rhodes University *http://www.royalroads.ca/programs/faculties-schools-centres/non-timber-resources/*	Royal Roads University	Website versions current to Feb 23, 2006
PERSONAL COMMUNICATIONS		
Personal communication: M. Folkema, *Planning Officer*, BC Timber Sales (Skeena Business Unit)	n/a	Various dates Sept 2004 – November 2005
Personal communication: A. Hetherington, *Ecosystem Specialist*, BC Ministry of Environment	n/a	Email communications Jan 10,12, 14, Sept 26, 2005; Jan 20, 2006
Personal communication: Brad Pollard, RPBio; *Principal*, Acer Resource Consulting	n/a	Jan 14, 18, April 20, Oct 27, 2005
Personal communication: L. Davies, RPF; *Visual Landscape Forester*, BC Ministry of Forests and Range, Coast Forest Region	n/a	March 29, 2006
RECREATION – PUBLIC, COMMERCIAL		
Guide Outfitters in British Columbia 2005-2006 (updated November 2005); Fish and Wildlife Recreation and Allocation Branch *http://www.env.gov.bc.ca/fw/wild/documents/guide_outfitters.pdf*	MOE	April 2005, Updated November 2005
SILVICULTURE AND FOREST HEALTH, PLANTS AND BOTANICALS		
Guide to the Evaluation of FSP Stocking and Related Standards *http://www.for.gov.bc.ca/ftp/HFP/external/!publish/FSP%20stocking%20standards/GuideFSPstkstds.doc*	MoFR	Feb 7, 2005
Options for Invasive Plant control	Acer Resource Consultants	January 14, 2005
TIMBER SUPPLY		
BC Ministry of Forests and Range – North Coast Forest District Website	MoFR	Website accessed Jan 12, 2006
North Coast Defined Forest Area Management (DFAM) group website *http://geocastle.com/terrace/dfam.htm* Including: North Coast Timber Supply Analysis Data Package *http://geocastle.com/terrace/clients_terrace/DFAM/data_pkg/data_pkg.htm*	North Coast DFAM Group	July 2004
VISUALS		
Scenic Area designation and Establishment of VQOs – District Manager letters	MoFR	1997
WILDLIFE		

Information Source	Publisher	Date of publication
Minister's orders respecting identified ungulate range and species at risk http://www.env.gov.bc.ca/wld/uwr/approved_order.html http://www.env.gov.bc.ca/wld/identified/approved_order.html	MOE	May 6, 2004
Notice – Indicators of the Amount, Distribution, and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the North Coast TSA ftp://ribftp.env.gov.bc.ca/pub/outgoing/cdc_data/Approved_FRPR_sec7_WLPPR_sec9_Notices_and_Supporting_Info/UWR/Timber_Supply_Areas/North_Coast_TSA/Notice/North%20Coast_TSA_UWR.pdf	MOE	Website versions current to Jan 11, 2006
Notice – Indicators of the Amount, Distribution, and Attributes of Wildlife Habitat Required for the Survival of Species At Risk in the North Coast Forest District ftp://ribftp.env.gov.bc.ca/pub/outgoing/cdc_data/Approved_FRPR_sec7_WLPPR_sec9_Notices_and_Supporting_Info/Species_at_Risk/North_Coast_FD/Notice/North%20Coast%20FD_SAR.pdf	MOE	Website versions current to Jan 11, 2006
Order - Ungulate Winter Range #U-6-001 (includes General Wildlife Measures for Mountain Goat Ungulate Winter Range in the Kalum TSA and TFLs 1 and 41, and associated updated maps to Mountain Goat Ungulate Winter Range http://wlapwww.gov.bc.ca/wld/documents/uwr/uwr_u6_001.pdf	MOE	November 24, 2005
Identified Wildlife Management Strategy 2004 – Including accounts and measures for Grizzly Bear, Great Blue Heron, Coastal Tailed Frog, Wolverine, and Marbled Murrelet http://www.env.gov.bc.ca/wld/identified/iwms2004.html	MOE	Website versions current to Jan 11, 2006
Inventory of approved and proposed Wildlife Habitat Areas, as identified on MOE websites: http://www.env.gov.bc.ca/cgi-bin/apps/faw/wharesult.cgi?search=show_approved http://www.env.gov.bc.ca/cgi-bin/apps/faw/wharesult.cgi?search=show_proposed	MOE	Website versions current to Jan 11, 2006
Inventory of known Ungulate Winter Ranges, as identified on MOE website (updated to Dec 23, 2004): http://www.env.gov.bc.ca/wld/uwr/ungulate_app.html	MOE	Website versions current to Jan 11, 2006
Red and Blue listed animal species, plant species, and ecological communities. Conservation Data Centre. 2005. BC Species and Ecosystems Explorer. B.C. Ministry. of Environment. Victoria, BC. http://srmapps.gov.bc.ca/apps/eswp/	MOE	Website version accessed as of February 21, 2006
Conservation Data Center: CDC update list for 2004/2005 http://srmwww.gov.bc.ca/atrisk/documents/NPC_Changes_Nov2004.xls http://srmwww.gov.bc.ca/atrisk/documents/EC_Changes_Nov2004.xls http://srmwww.gov.bc.ca/atrisk/documents/2005animal_changes.pdf http://srmwww.gov.bc.ca/atrisk/documents/2005plant_changes.pdf	MOE	Website last visited Sep 26, 2005

APPENDIX SDA: EVALUATION TOOL

This evaluation tool is provided to assist the Delegated Decision Maker in determining consistency of the strategies and results in the FSP with the Objectives set by Government. The discussion of how to measure and/or verify a strategy or result is only provided to demonstrate that they are measurable or verifiable – it is not meant to constrain the Ministry of Forests and Range in any way.

The structure of the tool is a table format that lists the strategies and/or results, with a description of which objective(s) it is consistent with, and why, followed by a way to demonstrate that the result or strategy is measurable or verifiable.

FSP ref. #	Result or Strategy?	Description of how it is consistent with the Objective	Summary of how the Strategy PROCESS or Result OUTCOME can be measured/ verified
NC-01	Strategy	FPPR s. 5 Consistency with the soils objective is achieved through taking action on roads, which are a known conduit for the movement of erodible soils: regular inspections will allow the risk of erosion to be mitigated.	Information can be requested to determine if inspections were scheduled, carried out, and any items identified were prioritized for action.
NC-02	Strategy	FPPR s. 5 Consistency with the soils objective is achieved through taking action on roads, which are a known conduit for the movement of erodible soils: regular inspections will allow the risk of erosion to be mitigated.	Information can be requested to determine if inspections were scheduled, carried out, and any items identified were prioritized for action.
NC-03	Result	FPPR s. 5 Consistency with the soils objective is achieved through taking action on roads, which are a known conduit for the movement of erodible soils: regular inspections will allow the risk of erosion to be mitigated.	Dated inspections are on file to prove that they were done.
NC-04	Result	FPPR s. 6 Consistency with the timber objective is achieved by confirming the need to reforest areas that are harvested, so there will be timber for the forest industry in the future.	Review of RESULTS and Annual declarations.
NC-05	Result	FPPR s. 6 Consistency with the timber objective is achieved by ensuring that other operators' access to timber is not limited by actions in this FSP.	Record of notification on file.
NC-06	Result	FPPR s. 6 Consistency with the timber objective is achieved by ensuring that the opportunity to harvest timber is maintained for those portions of Part 13 Designated Areas that are within FDUs that do not ultimately end up in a "no harvest" land use.	No harvest while lands are subject to Part 13 Designation.
NC-07	Result	FPPR s. 7(1); Section 7 UWR Notice (Moose); Indirectly benefits Grizzly Bear, too Consistency with the wildlife objective is achieved through this result's establishment of criteria for maintaining forage opportunities for identified species.	Review of RESULTS and Annual declarations.
NC-08	Strategy	FPPR s. 7(1); Section 7 UWR Notice (Moose) Habitat amount, distribution, and attributes are as per the spatially defined Moose UWR identified on the maps with the Section 7 notice. Timing activities are in general agreement with the North Coast LRMP.	Where development occurs outside of the May-November window, an RPBio report would be on file that describes actions/ timing.

FSP ref. #	Result or Strategy?	Description of how it is consistent with the Objective	Summary of how the Strategy PROCESS or Result OUTCOME can be measured/ verified
NC-09	Result	FPPR s. 7(1); Section 7 UWR Notice (Moose) Habitat amount, distribution, and attributes are as per the spatially defined Moose UWR identified on the maps with the Section 7 notice. Timing activities are in general agreement with the North Coast LRMP.	C&E Inspections will identify when operations are occurring, which can then be correlated to Moose UWR timing window. Where development occurs outside of the May-November window, an RPBio report would be on file that describes actions/ timing.
NC-10	Strategy	FPPR s. 7(1); Section 7 UWR Notice (Mtn Goat) Consistency with the wildlife objective and associated notice is achieved through this strategy's limiting of disturbance to ungulate species when in their winter range. This exemption provision ensures that the management of Goat UWR is occurring "without unduly reducing the supply of timber from British Columbia's forests".	If development occurs within 250 m of Proposed Goat UWR, a RPBio report would be on file that describes actions/ timing
NC-11	Strategy	FPPR s. 7(1); Section 7 UWR Notice (Mtn Goat) This exemption provision ensures that the Goat UWR is occurring "without unduly reducing the supply of timber from British Columbia's forests".	If development occurs within Goat UWR, an RPBio report and MOE response (or lack thereof) would be on file that describes actions/timing.
NC-12	Strategy	FPPR s. 7(1); Section 7 Notices for Marbled Murrelet, Queen Charlotte Goshawk Consistency with the wildlife objective and associated notices is achieved through this strategy's identification of an limiting of activities within potential murrelet and goshawk habitat	C&E Inspections will identify if operations are occurring within Candidate WHAs, and a request for the appropriate documentation can then be made.
NC-13	Strategy	FPPR s. 7(1); Section 7 SAR Notice (MaMu, QCGo, (GBear)); Old Growth Order Allows the establishment of a range of patch sizes - this is shown to be of benefit to Marbled Murrelet, Queen Charlotte Goshawk, and Grizzly Bear (as per IWMS habitat characteristics) Development within a FDU will move towards the patch size and seral stage distribution targets that are in place for NDTs, and will be calculated separately for each LU that overlaps the FDU.	Within four months of the completion of the seral/ patch analysis, a summary of the allowable patch size distribution (spatial & temporal) for the portions of the LUs within the Kitselas FDU will be available.
NC-14	Result	FPPR s. 7(1); Section 7 SAR Notice (MaMu, QCGo, (GBear)); Old Growth Order Allows the establishment of a range of patch sizes - this is shown to be of benefit to Marbled Murrelet, Northern Goshawk, and Grizzly Bear (as per IWMS habitat characteristics)	The same methodology for LU Seral/ Patch distribution is to be used to evaluate movement towards patch size distribution on a periodic basis (5 years). The annual reporting allows C&E to monitor if movement towards the result is being achieved, and they can then conduct an analysis based on the information provided by the licensee in its last annual reporting.
NC-15	Result	FPPR s. 8.2 Ensures that any harvesting in these Community Watersheds results in no hydrological impact, but allows activities to occur, thereby limiting timber supply impact.	No harvesting begins without clear-cut equivalency calculated, or an assessment in place, and a confirmation that the allowable thresholds have been met

FSP ref. #	Result or Strategy?	Description of how it is consistent with the Objective	Summary of how the Strategy PROCESS or Result OUTCOME can be measured/ verified
NC-16	Strategy	FPPR s. 9; FPPR s. 7(1); Section 7 SAR Notice (MaMu, QCGo, (GBear)); Old Growth Order Addresses the Old Growth Order by providing a process that is consistent with the targets in the Order, and by allowing for the designation of spatial old growth management areas (OGMAs). While meeting the requirements of the Old Growth Order, ensures that old growth will be retained over the landscape	Analysis can be reviewed or reproduced to ensure that limits are being met.
NC-17	Strategy	FPPR s. 9.2 Consistency is achieved in that the process defines how VSCs will be handled and evaluated as VQOs, and then indicates how management around the VQOs will occur.	VSCs are on FSP map, and VIAs will be done – if concern that VIA not done or VQO not met, C&E can request the VIA.
NC-18	Strategy	FPPR s. 9.2 Consistent with the non-approved VQO mapping that was attached to the Scenic Area designation letter. No polygons, but definitely within Scenic Area.	VSCs are on FSP map, and VIAs will be done – if concern that VIA not done or VQO not met, C&E can request the VIA.
NC-19	Strategy	FPPR s. 10 This strategy allows the identification, review, and update of traditional use and cultural heritage information that is used in the development (and if necessary, amendment) of this FSP. Consistency with the cultural heritage resources objective is achieved by providing a method for conservation and protection of known cultural heritage resource information, and for continual updates to cultural heritage resource information.	Summaries of the process are provided to the District Manager, and copied to the First Nation representative.
NC-20	Strategy	FPPR s. 10 This strategy allows the identification, review, and update of information that could affect the Nisga'a people. Consistency with the cultural heritage resources objective is achieved by providing a method for receiving information from a Treaty Holder, allowing for conservation and protection of known cultural heritage resource information, and for continual updates to cultural heritage resource information.	Summaries of the process are provided to the District Manager, and copied to the First Nation representative.
NC-21	Strategy	FPPR s. 10 This strategy allows the identification and review of traditional use and cultural heritage information that has not been captured in the development of this FSP. Consistency with the cultural heritage resources objective is achieved by providing for stand-level mitigation of identified cultural heritage resources when necessary.	Information on previously unidentified cultural heritage resource features and a description of any mitigative measures will be provided to the Ministry of Forests and Range' District Manager at or before cutting permit submission.
NC-22	Strategy	FPPR s. 10 This strategy allows the identification and review of traditional use and cultural heritage information that has not been captured in the development of this FSP. Consistency with the cultural heritage resources objective is achieved by providing for stand-level mitigation of identified cultural heritage resources when necessary.	Information on previously unidentified cultural heritage resource features and a description of any mitigative measures will be provided to the Ministry of Forests and Range' District Manager at or before cutting permit submission.

FSP ref. #	Result or Strategy?	Description of how it is consistent with the Objective	Summary of how the Strategy PROCESS or Result OUTCOME can be measured/ verified
NC-23	Result	FPPR s. 10 This result provides for the communication and review of new traditional use and cultural heritage information that has not been captured in the development of this FSP. Consistency with the cultural heritage resources objective is achieved by providing for stand-level mitigation of identified cultural heritage resources when necessary.	FSP Holder files indicate whether any new cultural heritage information was found, and how any potential impact was mitigated. (For the purposes of confidentiality and protection of cultural heritage features, FSP Holder file descriptions may be purposefully vague.)
NC-24	Result	FPPR s. 10 This result provides for the maintenance of a resource for an identified traditional use of Cedar or Cypress. Consistency with the cultural heritage resources objective is achieved by providing for stand-level retention of trees so that a supply of raw materials for traditional cultural heritage activities can be maintained.	Review of FSP Holder files to see how Cedar and Cypress was maintained. No more removal than allowed from retention areas. Measurement method is described.
NC-25	Result	FPPR s. 8; FPPR s. 12(3); FPPR s. 7(1); Section 7 SAR Notice (Coastal Tailed Frog) In accordance with the FPPR section 12(3), the retention of trees within Riparian Management Zones is addressed. A method for approximating basal area is provided, and the result is worded to reflect the need for flexibility with respect to site specific conditions. Providing for the retention of trees within riparian management zones achieves consistency with the objective for riparian areas (FPPR s. 8). This also contributes to the habitat attributes for Coastal Tailed Frog. There will be a timber supply impact from the increased reserves (amount unknown), but this is deemed as acceptable as the BC Government has accepted the NCLRMP.	As per result – Basal Area retention can be represented by area, and can be in clumps versus distributed along the entire stream. A list of blocks started before FSP approval or April 1/ 06 will have to be provided by the FSP Holders to C&E.
NC-26	Result	Confirms consistency with the established objectives.	No disturbance other than for crossing. Trail reestablished or relocated with DM approval.

TAB 1 ADVERTISEMENTS

Organised in chronological order, with the most recent information at the back of this section

This information is only provided to the BC Ministry of Forests and Range

TAB 2 PUBLIC REVIEW CORRESPONDENCE AND NOTES

Organised in chronological order, with the most recent information at the back of this section

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TAB 3 FIRST NATIONS' CORRESPONDENCE AND NOTES

Organised in chronological order, with the most recent information at the back of this section

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TAB 4 AGENCY CORRESPONDENCE AND NOTES

Organised in chronological order, with the most recent information at the back of this section

This information is only provided to the BC Ministry of Forests and Range

TAB 5 SUMMARY OF REVISIONS TO THE FSP

Changes from the Public Review version of the Forest Stewardship Plan for BCTS activities in the North Coast Forest District:

FSP Section	Summary of Change	Reason for Change

Supporting Document Section	Summary of Change	Reason for Change